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MONTHLY REPORT

OF

THE DEPARTMENT OF AGRICULTURE,

FOR

AUGUST AND SEPTEMBER,

1868.

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MONTHLY REPORT.

WASHINGTON, D. C., *September* 19, 1868.

SIR: I herewith respectfully submit for publication, as a report for the months of August and September, a statement of the condition of the crops, from the returns of the circulars for the months named, with extracts from correspondence; also brief articles upon the Spanish fever; diseases among horses and mules; experiments with the potato bug; pisciculture; Scuppernong wine; agricultural resources of San Joaquin county, California; the cotton trade of 1868; premiums for wheat-growers; international exchanges; sheep farming in Turkey; American dairymen in Switzerland; and tables and notes upon meteorology for the months of July and August.

J. R. DODGE, *Statistician.*

Hon. HORACE CAPRON, *Commissioner.*

CONDITION OF THE CROPS FOR AUGUST AND SEPTEMBER.

WHEAT.—The correspondence of August and September has been very voluminous and indefinite concerning wheat, furnishing numerous and contradictory elements in a calculation of quantity. Statements of disappointed expectations in threshing are sufficiently abundant in the south, in Wisconsin and other parts of the west, to furnish themes for agricultural croakers; a little rust here and there, the chinch bug, and other causes of failure are found; the grasshopper at certain points in the distant west has been a burden to wheat-growers. On the other hand, cases are mentioned of a three-fold acreage with half an average yield, giving a fifty per cent. aggregate increase notwithstanding the loss; numerous returns declare the present the largest crop in many years; and the majority, in view of the general increase in acreage, show a better result than that of last year, after accounting for losses in the yield. It may be stated, however, that the average yield per acre of the whole country is scarcely equal to that of 1867, but the increased area sown will secure an aggregate somewhat larger than the product of that year.

The States indicating a decreased product are as follows, 10 representing an average yield: New Hampshire, 9.8; Connecticut, 9.6; North Carolina, 9.4; South Carolina, 8.9; Georgia, 8.3; Alabama, 8.4; Texas, 6.6; Wisconsin, 9.8.

Other States give an increase: Maine, 10.8; Vermont, 10.9; Massachusetts, 10.6; New York, 10.3; New Jersey, 10.1; Pennsylvania, 10.3; Delaware, 10.5; Maryland, 10.2; Virginia, 10.5; Mississippi, 12.5; Louisiana, 11; Arkansas, 12; Tennessee, 10.7; West Virginia, 11.8; Kentucky, 11; Missouri, 13 5; Illinois, 10.4; Indiana, 11; Ohio, 10.8; Michigan, 10.6; Minnesota, 12.5; Iowa, 10.6; Kansas, 11.5; Nebraska, 12.5.

The September reports of condition when harvested represent the following States below the average: Maine, 9.5; New Hampshire, 9.5; New Jersey, 9.3; Delaware, 7; Virginia, 8; North Carolina, 7.5; South Carolina, 8.3; Georgia, 7.3; Alabama, 8; Mississippi, 8.8; Texas, 4.8; Arkansas, 9.1; Tennessee, 9.1; Kentucky, 8.6; Illinois, 9.2; Wisconsin, 9.8; Iowa, 9.5; Nebraska, 9.8; and the following up to or above the average: Vermont, 10.5; Massachusetts, 10;

New York, 10.3; Pennsylvania, 10.4; Maryland, 10.1; West Virginia, 10.1; Missouri, 10.6; Indiana, 10.6; Ohio, 10; Michigan, 10.5; Minnesota, 11.4; Kansas, 10.8.

A study of the accompanying tables, in connection with the extracts from notes of statistical observers, which follow, will reveal in a large measure the peculiarity of the present wheat crop of the United States.

Lehigh county, Pennsylvania.—The yield of wheat is considerably below what was anticipated. The fields had a fine appearance all summer, but when ripening a large number of the heads remained erect; many were half filled, some less, and others more. In some cases the straw was clean and bright yellow; in others it appeared as if attacked by mildew; but this was not the case, for of the late heads which came up along the fences, the straw remained bright, the heads large and well-filled with plump kernels; nor could it have been occasioned by the weevil, for not enough could be found in the heads to do all the injury. The heads shrivelled and dried up before the stalks were ripe.

Newcastle county, Delaware.—There is much disappointment in the wheat crop. Early in the season a large product was expected. It came out of the winter well, and the plant produced a superabundance of straw. The spring was cold and wet, and long-continued, and when the weather cleared it became very warm, with hot sun, giving but a short period for the maturing of the ear, which is short, but the grain is better than last year, suffering little from insects or rust. Upon the whole, quantity and quality considered, the crop may be set down at twenty per cent. better than last year.

King George county, Virginia.—The yield of wheat has disappointed farmers. Threshing shows the product to be one-fourth less than that of last year. The greatest failure is in the white, smooth-head varieties. The red bearded has been the most productive, but the heads were far from full. This result disheartens the farmers; the more because they cannot discover the cause of failure. Fallows have failed as well as the corn-land wheat; fertilizers have not enlarged the crop to a great extent, and in some instances have produced no decided effect.

Nelson county, Virginia.—The wheat crop of Nelson was unusually promising until a short time before harvesting, when, from excessive wet, it showed signs of rust. This is proving to be much more damaging since threshing has commenced than had been anticipated.

Sussex county, Virginia.—Most of the wheat crop has been threshed, and the yield is not more than two-thirds the anticipated crop; quality average, and yield of straw enormous.

Chowan county, North Carolina.—The wheat crop of 1867 was a failure, and the present year there is not half the quantity raised. In many instances the farmers failed to get back the amount sown upon the land.

Macon county, North Carolina.—Wheat yields less per acre than last year, but the deficiency is probably made up by the increased acreage.

Prairie county, Arkansas.—Have the best crops here we have had since 1862, which was the best crop year ever known in the county.

Fayette county, Tennessee.—Never was there such a disappointment in the yield of wheat. All previous estimates have failed since the grain has been threshed out. It is small and shrivelled, due to rust and smut; in some crops so poor as not to justify getting out. The average per acre will be very small, but the immense increase of acreage over last year accounts for the increase of sixty per cent. in the aggregate yield.

Jefferson county, Missouri.—The extremely hot weather, lasting from July 1st to 20th, lessened the crop about twenty per cent. in this county, still leaving us, we think, the largest crop since 1860.

Vernon county, Missouri.—Wheat much better than common, the dry weather seeming to increase the crop.

Shawnee county, Kansas.—I have travelled over the southern portion of Kansas, and find good crops of small grains, some fields of wheat of 30 acres yielding 33 bushels per acre. Wheat has been mostly threshed. The yield will average about 18 bushels to the acre.

Dixon county, Nebraska.—The damage done by the grasshoppers and dry weather, just before the wheat headed, turns out to be more extensive than at first supposed.

Cedar county, Nebraska.—The wheat will not turn out as good as was expected the 1st of July.

Clarke county, Iowa.—Wheat, corn, and oats are better this year than ever known before.

Boone county, Iowa.—In consequence of the favorable weather, and the sudden disappearance of the grasshoppers about the 1st of July, the yield of wheat has far exceeded our expectations.

Ford county, Illinois.—Our wheat crop has come far short of our expectations, both in quality and quantity. There was a larger breadth of land sown to spring wheat than usual; but the dry, hot weather and chinch bug damaged it materially. From what I can learn, it will not yield over 12 bushels per acre, 52 pounds to the bushel.

Warren county, Indiana.—Our winter wheat is good, and the quantity exceeds that of last year two to one. Our spring wheat looked well and promised a good yield up to the time of cutting; but upon close examination it was found that the chinch bug had destroyed or damaged it very much, so as to reduce the quantity per acre to less than one-half that of last year; yet the quantity sown foots up, in the aggregate, three times the amount of last year.

Fayette county, Indiana.—The wheat threshed in this vicinity is falling at least 25 per cent. below the estimate of most farmers, ranging from 5 to 13 bushels per acre; averaging about eight bushels per acre.

Wells county, Indiana.—Our wheat yields well—best crop since 1864; is generally saved in good order without rain.

Kosciusko county, Indiana.—Wheat is not threshing as well as was expected, but, I think, will make a full average crop.

Washington county, Ohio.—We have just threshed in our neighborhood; the best crops of wheat yielded about 12 bushels per acre. Mr. J. S. Slow, one of our largest farmers, sowed about 100 bushels last fall, and had 300, mostly on good land.

Green county, Wisconsin.—Wheat will not yield more than from 10 to 14 bushels per acre. The yield of straw was immense, but the grain was not there. I often hear such remarks as, "I had straw enough for 500 bushels of wheat, but I got only 250."

Washington county, Wisconsin.—The winter wheat had a heavy growth of straw, but shrunk so badly that it is hardly marketable. Spring wheat ripened too quick, and is not as plump as in former years. The yield is from 11 to 27 bushels per acre, the average 15 bushels.

Rock county, Wisconsin.—Wheat, as far as threshed, indicates a yield of about 10 bushels per acre.

Racine county, Wisconsin.—Wheat lodged badly, and is much shrunk by long-continued hot weather, reducing the yield fully one-half.

Washtenaw county, Michigan.—Wheat heavier than ever known before; that is, a greater growth of straw, which is "struck" with rust, and the berry a little shrunk; still the crop is immense for this section.

Lapeer county, Michigan.—Wheat is generally a very good yield, better than was expected before harvest.

Box Elder county, Utah.—The grasshopper visitation has caused a deficiency of wheat, as compared with an average crop. Much good fall wheat has been raised without irrigation this season. Generally, fall wheat was but little

injured by grasshoppers. Farmers talk of sowing wheat extensively this fall.

INDIAN CORN.—This crop is generally reported in fine condition, and in most sections is so rapidly maturing as to be in little danger from frost. In portions of the west, especially so in parts of Kansas and Nebraska, the drought and the grasshoppers have materially injured the crop; but the season since June has been generally favorable, and, with the unprecedented increase in the area planted—3,000,000 of acres, or about nine per cent.—there must be an immense aggregate yield of this great staple. New Hampshire reports the average condition of the crop September 1, as compared with same time last year, at 11 tenths, (or 10 per cent. better;) Vermont, 13-tenths; Massachusetts, 10.4; New Jersey, 10.5; North Carolina, 10.8; South Carolina, 12 7; Mississippi, 11.5; Louisiana, 20; Texas, 10.5; Arkansas, 11; Tennessee, 11.4; Kentucky, 12; Illinois, 10; Ohio, 10; Wisconsin, 12; Minnesota, 13.1; Iowa, 10 9; while Maine indicates a decline to 9.3 tenths; Rhode Island, 9.6; New York, 9.9; Pennsylvania, 9.8; Delaware, 8; Maryland, 9.8; Virginia, 9.6; Georgia, 8.8; Florida, 8.5; Alabama, 8.5; West Virginia, 9.4; Missouri, 9; Indiana, 9.8; Michigan 9.2; Nebraska, 7; and Kansas, 5.8.

A few extracts, indicative of the promise in the localities named, are given:

Kosciusko county, Indiana.—Since the rain, corn has come out beyond all expectation; with a favorable fall it will be a full average crop, though it is quite late.

Kankakee county, Illinois.—We never had so good a prospect for a very large crop of corn as at present—some out of the way of frost; all will be by the 15th September, with good weather.

Athens county, Ohio.—The corn prospects have been cut short by the grasshoppers, especially in the low-lands; they have done immense damage, and are still operating. In some parts of our county hill-lands have suffered by drought.

Allen county, Ohio.—Excessive dry weather in July and August has put the corn crop back.

Harrison county, Iowa.—The corn crop is very promising, although some of it was planted late. The uncommonly hot summer has brought it on very rapidly, and if there is a favorable fall there will be more corn than ever before.

Clarke county, Iowa.—Corn better than ever known before.

Pawnee county, Nebraska.—Corn injured by chinch bugs, by excessive dry weather, and by grasshoppers. These pests stopped only a few days with us, but they took the blades of corn and a part of the ears, leaving us a shorter crop than that of 1860.

Franklin county, Kansas.—The corn crop is not as favorable as was expected about July. We have had a season of showers. In some localities corn is good. Late corn has suffered.

Russell county, Kentucky.—The weather has been very favorable to the growth of corn, and, although our prospect for a crop in May and June was discouraging, the crop has come forward rapidly, and should the season continue favorable we will make 20 per cent. more corn than last year.

Greene county, Tennessee.—Our corn crop promised but little at the end of the great drought, but the rains have brought it up wonderfully, except on poor land.

Burke county, North Carolina.—Our farmers say the prospect for a big crop of corn was never better.

King William county, Virginia.—Appearances indicate a good crop of corn. The early corn suffered by the dry weather which prevailed about four weeks, but the chief portion of the crop was late, and the rains were in time to relieve it from suffering severely.

Queen Anne county, Maryland.—Corn, on good, high land, has made wonderful improvement and looks finely; in low and wet lands it is hopelessly gone.

Hudson county, New Jersey.—The extreme heat in July has advanced our corn finely, and we think we shall have a large crop.

Bradford county, Pennsylvania.—The drought of July greatly injured the corn.

COTTON.—The reports of condition of cotton are favorable in a majority of cases. The average planted was somewhat less than in 1867, but the culture is generally better, and the prospect of a fruitful yield more promising. The improvement is more marked in Texas than elsewhere. "From all sections of our State," said our Galveston correspondent in August, "we have the most encouraging accounts of the coming cotton yield. The weather is extremely propitious, and although we have occasional complaints from some sections, of the worms appearing, the season is too far advanced to fear extensive ravages from them. In the lower tier of counties picking has already commenced."

The August returns from Tennessee claimed a very favorable season for growth. Rutherford, one of the few counties in which cotton-growing is prominent, reports an improvement of 20 per cent. in condition, in 20 days, and represents that "the fear is now that the plant is going to weeds; that the rain has been too abundant. A considerable reduction in acreage is to be noted, estimated three-tenths as compared with 1867. The crop of the county in 1867 was 20,000 bales. I estimate for this year, at 500 pounds seed cotton per acre, 16,200 bales." This indicates a decrease of 30 per cent. in acreage, and about 28 in yield. From Fayette, "cotton, though lessened as to acreage, has a fine appearance, and will come up to the average yield."

Louisiana, which has suffered in the cotton yield more than any other State since the war, is more prosperous this year. Some of our correspondents there report a decrease of one-third in acreage, and an increase in yield per acre of 20 to 30 per cent.

From Georgia a few gloomy reports have been received. A drought of ten weeks injured certain sections of the State in the early part of the season, (May, June, and July,) and further injury resulted by excessively hot weather in August. In Decatur the cotton caterpillar has multiplied and destroyed from half to two-thirds of the crop; and the same pest is reported among the sea-island cotton of McIntosh county, and also the boll worm. Hot sunshine and heavy rains caused, in some places, the dropping off of bolls and squares, as in Columbia county, where a yield of 400 pounds of lint in certain fields is still counted upon.

The following notes on cotton are appended:

Henderson county, Texas.—In some portions of our State the cotton worm has made its appearance. On the Trinity river, in Polk county, and also in Fort Bend and Brazos counties, on the Brazos river, the worm first appeared among the cotton between the 20th and 25th of July. The crop of this county promises very fine. No worms as yet.

Rusk county, Texas.—The cotton looks well. The cotton worm has appeared in small numbers, and may yet injure the crop, which will not be safe yet for 30 days.

Marion county, Mississippi.—The panic about the cotton "army worm" has subsided for the present.

Monroe county, Mississippi.—The boll worm has commenced his destructive work in this county, and may yet ruin the crop.

Hinds county, Mississippi.—Cotton worm at work; little damage done yet by them; boll worm worse than ever known; season unpropitious.

Prairie county, Arkansas.—Have the best crops in this county since 1862; some of the farmers will have at least 1½ bale per acre.

Wake county, North Carolina.—Cotton was kept back on stiff lands by

drought until August, when frequent rains stimulated the weeds too highly; on light lands the prospect is good.

Onslow county, North Carolina.—Cotton and corn are 20 per cent. better than last year; though not an average yield in corn, it is about an average in cotton.

Spartansburg district, South Carolina.—The cotton weed is large; but bolls few and small, and many of the blooms and squares dropping.

Wilcox county, Alabama.—The cotton worm (caterpillar) noticed July 20; three weeks of rain every day has caused them to spread faster than ever before. Nothing but hot, dry weather will save us any length of time.

Leon county, Florida.—The caterpillar has just about finished the cotton of this county.

Pike county, Mississippi.—The weather that succeeded the rainy spell, by checking the rapid growth of the plants, caused the forms on the middle branches to fall off to some extent, and to this must be added the depredations of the boll worm; these two causes have affected the middle cotton, and hence I have materially reduced my estimate from last month. Notwithstanding this drawback the crop is more than an average; the weed is larger than it has been for years, and as the weather is now propitious the prospects of the crop are flattering; but the maturity of the top cotton and the consequent yield of the crop will depend on the lateness of the frost. Some fears of the army worm are expressed, but the season is too far advanced for any serious injury to result from this cause. The planters are now generally picking, and the quality of the crop promises to be good.

Tensas county, Louisiana.—The rainy weather has forced the cotton stalk along almost too much for some of the old planters, but with good weather in August there will be a large crop, if there are no caterpillars. There is some talk of worms about the parish, but I have not been able to see a genuine cotton worm yet.

Hay.—Hay shows an increased product in all the northern States, except Illinois, which reports a decline of 2 per cent.; Wisconsin, 10 per cent.; and Kansas, 31 per cent.; and in each of the southern States, save South Carolina, where the decline is 12 per cent.; Florida, 10 per cent.; and Alabama, 1 per cent. In some of the States the increase is quite large—Louisiana reporting an advance of 35 per cent.; Delaware, 20 per cent.; Rhode Island and Minnesota, 13 per cent.; New York, 11.1 per cent.; Maine and New Hampshire, 9 per cent.; Vermont, New Jersey, and Michigan, 8 per cent.; Arkansas, Kentucky, Missouri, and Nebraska, 7 per cent. While the quantity is greatly increased the value is also largely enhanced by the superior quality of the crop, being harvested in excellent condition.

Oats.—The crop has not fully redeemed the promise before harvest, and in several States is reported considerably below an average yield. New York, Massachusetts, and Georgia show 9.2 tenths of a crop; Pennsylvania, 8.3; Virginia, 8.6; South Carolina, 8; Maryland, 6.2; New Jersey, 7.6; Rhode Island, 7, and Delaware only 3; but Missouri, Minnesota, and Vermont report 11.2; Kentucky, 11.8; Indiana and Tennessee, 10.9; Arkansas, 10.7; other States ranging from 9 to 10, which, with the increased acreage, will probably bring the crop up to a full yield, as compared with an average crop.

Rye and Barley.—Rye and barley show no material changes from previous reports, the crops having been well harvested, with few complaints of bad condition.

Buckwheat.—A slight increase in acreage, with promise of fair product.

Potatoes.—Potatoes are not so promising as appeared at the date of our previous report, considerable damage having been done the crops by depredations of the potato bug, which has appeared in various parts of the west in immense numbers, reference to which will be found under head of "Extracts

from correspondence." Comparatively little injury has been occasioned by the rot—more, perhaps, by the drought—and the greater area planted will insure a large crop, despite the local drawbacks named.

Sugar-cane.—Sugar-cane indicates a considerably increased yield as compared with last year; Louisiana reporting an advance of 28 per cent.; Texas, 46 per cent.; Florida, 5 per cent.; while Alabama, Georgia, and Mississippi maintain an average yield.

Hops.—Hops show a large increase in acreage, Wisconsin reporting an advance of over 70 per cent.; Minnesota, 43 per cent.; Michigan, 25 per cent.; Iowa, 13 per cent.; Ohio, 12 per cent.; Missouri, 6 per cent.; Tennessee, 5 per cent.; New York, 18 per cent.; Maine, 25 per cent.; New Hampshire, 5 per cent.; and Vermont, 3 per cent. The general condition of the crop is also somewhat better than last year.

Tobacco.—Tobacco promises about an average yield in Vermont, Massachusetts, Connecticut, Pennsylvania, Kentucky, Alabama, Iowa, Wisconsin, and Indiana; in Michigan, Virginia, North Carolina, and Arkansas, 9 tenths of an average; New York, 9.5; Maryland, 7.7; Georgia, 9.1; Tennessee, 9.7; Missouri and Illinois, 8.6; Ohio, 9.8.

Apples.—Apples will prove a full crop in few States; in a majority not half a crop, and in several States almost an entire failure. Michigan reports 6 tenths of a crop; Ohio, 6.3; Wisconsin, 5.2; Indiana, 3.8; Illinois, 4.7; Virginia and Maryland, 3.8; Delaware, 2; Pennsylvania, 6.9; New Jersey, 4; New York, 7.3; Masssachusetts, alone, of all the Eastern, Middle, and Western States, claims more than an average yield.

Peaches.—Peaches have been quite abundant in the south and in parts of the west, but in the middle States, to which, with Maryland, the great cities look for their supply of this fruit, the yield has been very small; New Jersey, Maryland, and Delaware reporting very general failure of the crop.

Grapes.—Grapes in Vermont, New York, Alabama, Texas, West Virginia, Missouri, Kansas, Illinois, and Indiana, promise a good yield, while in few of the States is the crop set down at less than 9 tenths.

Wool.—Wool shows a general decline in weight of fleece of from 3 to 5 per cent. as compared with an average product.

Stock Hogs.—A considerable reduction is noted in the number of fattening hogs, and also in their condition as to size and weight, as compared with the average of former years. This is especially true in the southern States, Louisiana alone showing increased numbers; of the western States, only Missouri, Nebraska, Kansas, and Minnesota report above or up to an average stock. Indiana reports 9 tenths; Illinois, 8.5; Ohio, 8.9; Wisconsin, 9.5; Iowa, 9.3; Michigan, 9.7; Kentucky, 9; West Virginia, 9.1; the New England States, 9.5; and the Middle States, 9.4.

Table showing the condition of the crops, &c., on the first day of August, 1868.

STATES.	WHEAT.			RYE.	BARLEY	OATS.	CORN.	BUCKWHEAT.	
	Quantity of winter wheat, compared with 1867.	Quantity of spring wheat, compared with 1867.	Total quantity, taking winter and spring wheat together, compared with 1867.	Total quantity of rye, compared with 1867.	Condition of barley, compared with 1867.	Condition of oats, compared with 1867.	Average condition of corn on the 1st day of August, compared with 1867.	Average acreage sown, compared with last year.	Average condition on the 1st day of August, compared with last year.
Maine	10	11.2	10.8	10	9.9	10.6	10.5	10.3	10.6
New Hampshire	9.2	10.2	9.8	10.2	9.8	10.4	10.7	9.6	9.3
Vermont	9.5	11.1	10.9	9.9	10.1	9.6	11.2	10.3	9.7
Massachusetts	10.8	10.4	10.6	11	10.1	10.1	10.3	9.8	10
Rhode Island	.....	.....	.....	10	8	8.5	9	.....	.....
Connecticut	9.6	9.6	9.6	10.3	9.3	9.3	9.6	8.6	8.6
New York	10.7	10	10.2	9.8	10.4	10.4	10.1	9.3	9
New Jersey	10.1	.....	10.1	9.4	9.6	9.1	10.4	10.2	9.8
Pennsylvania	10.4	10.2	10.3	9.7	9.7	9.7	10.2	9.7	9.1
Delaware	10.5	.....	10.5	10	.....	6.5	9	10.5	10
Maryland	10.2	.....	10.2	10.2	9.8	8.1	9.6	10.4	10.2
Virginia	10.5	.....	10.5	10	.....	9.5	9.5	9.9	9.7
North Carolina	9.4	.....	9.4	10.5	9.8	10.1	11.6	10	9.8
South Carolina	8.9	.....	8.9	8.9	8.5	7.9	10.4	.....	.....
Georgia	8.3	.....	8.3	9.5	10.1	9.8	8.6	10	10
Florida	8	.....	8	8.3	.....	8.3	11.5	.....	.....
Alabama	8.4	.....	8.4	9.8	10	10.5	7.8	.....	.....
Mississippi	17	.....	12.5	10.5	9	15.1	11.9	10	10
Louisiana	9.1	.....	11	9	.....	12.3	15.7	.....	.....
Texas	6.6	.....	6.6	9.2	8.9	10	13.9	.....	.....
Arkansas	12	.....	12	10.5	10.5	12	13.2	10	8.3
Tennessee	10.7	.....	10.7	10.1	10.1	11.5	10	9.9	9.7
West Virginia	12.5	10.6	11.8	11.3	9.1	10.9	9.6	10	9.9
Kentucky	11	.....	11	10.8	9.6	12	12.6	10.1	10.5
Missouri	13.3	.....	13.5	11.2	10.8	12.5	11.5	10.1	9.7
Illinois	10.3	10.5	10.4	10.5	9.8	10.6	11.8	9.8	9.7
Indiana	10.9	11.3	11	11	10.1	11.1	10.2	9.7	9.3
Ohio	10.7	11	10.8	11.4	8.5	12	11.1	10	10.1
Michigan	10.7	11.5	10.6	10.6	10.4	9.9	9.6	9.8	9
Wisconsin	8.6	10.3	9.8	10.1	9.8	9.8	11.5	10	9.7
Minnesota	10.8	12.8	12.5	10.3	11.9	11.3	13.3	10.6	10.6
Iowa	10.5	10.6	10.6	9.9	9.9	11.3	13.9	10.5	9.8
Kansas	11.3	12.5	11.5	11.5	10.2	11	7.5	9.5	8.9
Nebraska	10	13.7	12.5	11	10	11.8	11.2	15.6	12.4

Condition of the crops, &c.—Continued.

STATES.	POTATOES.	BEANS.	SORGHUM.	HAY.				
	Average condition of potatoes on the 1st day of August, compared with last year.	Average condition August 1, compared with last year.	Average condition August 1, compared with last year.	Quantity of timothy, compared with last year.	Average condition of timothy when harvested.	Quantity of clover, compared with last year.	Average condition of clover when harvested.	Quantity of hay of all kinds, compared with last year.
Maine	10.3	11.4	.....	11.1	9.7	10.2	10.2	10.9
New Hampshire	9.4	10.7	.....	11.2	10.3	11.5	10.8	11.9
Vermont	9.2	10.4	.....	9.5	10.5	11	11.4	10.8
Massachusetts	10.6	11.2	11	10.2	10.3	10.1	10.3	10.2
Rhode Island	10	10	.....	10	10.5	10.5	10.5	11.3
Connecticut	9.5	9.3	9	10.6	11.1	10	11.3	10.3
New York	9	10.2	9.8	11.2	10.3	11	10.6	11.1
New Jersey	10.4	9.4	9.6	10.8	11.6	10.8	11.3	10.8
Pennsylvania	9.1	9.5	9.5	9.9	10.5	10.4	10.8	10.3
Delaware	10	10.5	9.5	12	12	12	12.2	12
Maryland	9.1	9.8	8.7	10.2	9.8	10.1	10	10.1
Virginia	9.6	10.2	9.5	10.2	10.1	10.5	10.7	10.4
North Carolina	10.2	10	8.9	9.6	9.8	11.4	10.5	10.6
South Carolina	10.1	10	8.1	.....	.....	11	10	8.8
Georgia	9.1	8.6	8.2	8.6	10.6	11	11.6	10.2
Florida	11	9	.....	.....	.....	.....	.....	9
Alabama	9.7	9.2	10.1	.....	.....	9.6	11	9.9
Mississippi	11.3	11.4	10.4	.....	.....	10.6	10	10.6
Louisiana	13.8	.....	9	.....	.....	10.5	.....	13.5
Texas	11.1	10.2	10	9.6	.....	10.1	.....	10
Arkansas	11.2	10.8	11.5	10.7	9.1	10.6	9	10.7
Tennessee	9.4	8.9	9.4	9.7	9.4	10.1	10	10
West Virginia	9.1	10	9.3	10.3	10.5	9.7	10	10
Kentucky	12	10.4	11.2	10.4	10.6	9.7	10.1	10.7
Missouri	9	9.3	10	10.4	9.7	11	10	10.7
Illinois	9.3	10	10.4	10.2	10.5	9.3	9.3	9.8
Indiana	9.4	9	10.3	10.6	10.6	10.1	10.4	10.3
Ohio	10	10	10.7	10	10.6	10.3	10.6	10.1
Michigan	8.2	8.8	9.3	10.6	10.5	11	10.6	10.8
Wisconsin	7.6	9.7	9.5	9.2	9.9	8	10.3	9
Minnesota	9.1	11.3	12.1	11.3	11.3	11.3	10.9	11.3
Iowa	10.5	9.4	11	10.6	10	10.2	10.3	10.5
Kansas	7	8.4	8.1	11.3	9	10	9.6	6.9
Nebraska	10.2	9.7	12.2	10.5	12	11	11	10.7

Condition of the crops, &c.—Continued.

STATES.	PASTURES. Average condition August 1, compared with last year.	TOB'CO. Average condition August 1, compared with last year.	COTTON Average condition August 1, compared with last year.	SUGAR CANE, (not sorghum.) Average condition August 1, compared with last year.	APPLES Average condition August 1, compared with last year.	PE'CH'S Average condition August 1, compared with last year.	GRAPES Average condition August 1, compared with last year.
Maine	10.7	.....	.....	.....	10.3	.....	9.7
New Hampshire	10.3	.....	.....	.....	10.7	9.6	9
Vermont	10.7	.....	.....	.....	8.2	.....	8.6
Massachusetts	10.1	10.3	.....	.....	12	7.7	7.6
Rhode Island	10.5	.....	.....	.....	13	11	10.5
Connecticut	10.3	10	.....	.....	10.6	8.3	7.3
New York	9.4	9.7	.....	.....	9	11.6	10.4
New Jersey	9.9	10	.....	.....	6.5	5.1	10.2
Pennsylvania	8.8	9.8	.....	.....	9.6	9.6	9.7
Delaware	10	.....	.....	.....	7	2	9
Maryland	8.7	8.3	.....	.....	5.4	3.6	11.8
Virginia	9.1	9.3	9.1	.....	6.1	3.3	9.7
North Carolina	9.9	8.5	10.5	.....	9.5	10.6	9.8
South Carolina	9.1	10	9.6	9	10.1	13.6	8.8
Georgia	9.1	8.7	9.2	10.5	14.5	12.5	10.1
Florida	12	10	8.2	11.6	.....	7.2	12.3
Alabama	10.3	9.3	10.3	10	13	16	11.2
Mississippi	10.7	10.8	12	10	14	16.2	13.4
Louisiana	10	11.5	13.9	12.8	10.5	15.2	13
Texas	10.7	10.1	14	12.6	11.5	16.5	17
Arkansas	10.5	10.9	13.5	.....	14.9	12.2	14.4
Tennessee	10.2	8.9	10.4	.....	12.7	11.5	9.8
West Virginia	9	9.1	.....	.....	7.6	6.8	9.9
Kentucky	10.7	10.3	10.4	.....	7.5	6.7	9.9
Missouri	9	9.6	9	.....	7.6	10.5	11
Illinois	10.1	10	10.3	.....	6.3	8.9	10.5
Indiana	9.8	9.6	.....	.....	5.1	13.7	11.1
Ohio	10.5	9.8	.....	.....	9	7.7	9.6
Michigan	8.2	8.8	.....	.....	7.7	7.9	9.6
Wisconsin	8.8	10	.....	.....	6 8	.....	10
Minnesota	10	10.2	.....	.....	10.5	.....	11.8
Iowa	9.8	9.2	.....	.....	8.8	11.6	10.8
Kansas	8.2	8.1	8.2	.....	10.6	16.9	10.9
Nebraska	9.1	9.5	.....	.....	9	7.5	10.4

Table showing the condition of the crops, &c., on the first day of September, 1868.

STATES.	WHEAT. Condition when harvested, as compared with an average crop.	RYE. Condition when harvested, as compared with an average crop.	BARLEY. Condition when harvested, as compared with an average crop.	OATS. Condition when harvested, as compared with an average crop.	CORN. Condition September 1, 1868, as compared with an average prospect of crop.	BUCK-WHEAT. Condition when harvested, as compared with an average crop.	BEANS. Condition September 1, 1868, as compared with an average prospect of crop.	SOR-GHUM. Condition September 1, 1868, as compared with an average prospect of crop.	POTATOES (Solanum tuberosum. Condition September 1, 1868, as compared with an average prospect of crop.	POTATOES (Batatus edulis, sw't. Condition September 1, 1868, as compared with an average prospect of crop.	COTTON. Condition September 1, 1868, as compared with an average prospect of crop.
Maine ..	9.5	9.5	8.2	9	9.3	9.8	9.4	.....	8.1	.....	.....
N. H...	9.5	9.5	9.4	9.5	11	9.8	10.4	.....	9.9	.....	.....
Vermont	10.5	10.6	10.5	11.2	13	9.6	10.7	.....	8	.....	.....
Mass ...	10	9.8	9.3	9.2	10.4	10.6	10	.....	10.5	.....	.....
R. I....	.....	10	7	7	9.6	.....	10	.....	8.3	.....	.....
Conn ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
N. York.	10.3	9.9	9.4	9.2	9.9	9.1	9.4	10.1	8.7	.....	.....
N.Jersey	9.3	8.8	.....	7.6	10.5	10.2	9.5	10	9.5	9.6	.....
Penn'a .	10.4	9.5	9.8	8.3	9.8	9.8	9.5	10.1	8.3	9.5	.....
Del	7	7	.....	3	8	.....	8	8	7	9	.....
Md	10.1	9.5	9.5	6.2	9.8	9.2	10	8	8.7	8.4	.....
Va	8	9.5	.....	8.6	9.6	10.3	9.4	9.2	9.2	9.3	5
N. C....	7.5	9.6	8.8	10	10.8	8.5	9.7	9.4	10	9.7	10.2
S. C....	8.3	9.4	.....	8	12.7	.....	10.5	9.5	9.6	9.3	9.5
Georgia .	7.3	9.1	9.4	9.2	8.8	10	10.2	9.3	9.5	10	8
Florida .	.....	.....	.....	10	8.5	.....	10	.....	.....	10	4
Alabama	8	9.2	9.5	9.1	8.5	.....	9.7	10	10.5	10.2	7.8
Miss....	8.8	9.6	9	9.5	11.5	.....	11.5	10.2	11.1	12	9.1
La	.....	.....	.....	10	20	.....	.....	10	.....	12	7.7
Texas ..	4.8	8.2	9.4	9.8	10.5	9	13.7	10.2	12.7	12.8	12
Arkansas	9.1	10	.....	10.7	11	.....	11	10.4	10.5	10.5	11
Tenn ...	9.1	9.5	9.7	10.9	11.4	11.4	10.2	9.6	9.7	9.6	9.8
W. Va..	10.1	9.9	10	9.6	9.4	9.7	9.8	9.5	8	9.3	.....
Ky	8.6	9.9	9.5	11.8	12	10.3	10.2	10.2	11.1	10.2	9.7
Missouri	10.6	10.5	10.1	11.2	9	8.5	8	9.7	7	9	9.7
Illinois .	9.2	9.8	9.5	9.3	10	9	8.4	9.2	7.1	8.7	9.4
Indiana.	10.6	10.9	10.1	10.9	9.8	9.8	9.1	9.3	7.4	9	.....
Ohio	10	10.1	9.2	10	10	8.3	8.8	9.4	7.5	9.2	.....
Mich ...	10.5	10.6	10.5	9.4	9.2	9.7	8.7	8.6	7.1	9.5	.....
Wis	9.8	10	9.7	9.2	12	10.1	9.2	7.5	6	10	.....
Minn ...	11.4	10.5	11.2	11.2	13.1	10	10.5	10.6	8.6	.....	.....
Iowa ...	9.5	9.5	9	9.1	10.9	9.5	8.7	10.2	7.1	9	.....
Kansas .	10.8	10.4	10.1	10.4	5.8	9	6.8	9.1	5	9	.....
Neb	9.8	10.2	9.7	10	7	7.6	5.9	10.1	7.9	6.1	.....

Condition of the crops, &c—Continued.

STATES.	SUGAR CANE, (not sorghum.)	APPLES.	PE'CH'S	GRAPES	HOPS.		STOCK HOGS.		WOOL.	TOB'CO.
	Condition September 1, 1868, as compared with an average prospect of crop.	Condition September 1, 1868, as compared with an average prospect of crop.	Amount of crop, as compared with an average one.	Condition September 1, 1868, as compared with an average prospect of crop.	Acreage of hops, compared with last year.	Condition of crop September 1, 1868, as compared with an average prospect of crop.	Number for fattening, as compared with an average crop.	Condition of same as to weight and size, as compared with an average crop.	Weight of fleece, as compared with an average clip.	Condition September 1, 1868, as compared with an average prospect of crop.
Maine	.....	8.5	.....	9.8	12.5	10.2	9.3	9.6	9.7	.....
New Hampshire	.....	9	8	9.8	10.5	10.2	10	9.8	9.4	.....
Vermont	.....	8.7	.....	11	10.3	10.6	9.2	10	9.3	10
Massachusetts	.....	10.5	10.6	8.2	10	10	9.5	10	9.5	10
Rhode Island	.....	4.6	4.5	7	.....	.....	9.3	10	9.6	.....
Connecticut	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New York	.....	7.3	7.3	10.1	11.8	10.4	9.4	10	9.7	9.5
New Jersey	.....	4	2	8.8	8.6	9	9.4	10	9.8	10
Pennsylvania	.....	6.9	5.8	9.2	9.9	9.6	9.5	9.9	9.7	10.1
Delaware	.....	2	.....	7	10	10	8	10	10	.....
Maryland	.....	3.8	1.6	8.6	.....	.....	9.7	9.7	10	7.7
Virginia	.....	3.7	2.3	8.1	.....	.....	8.1	9.1	9.2	9
North Carolina	.....	8.3	8	9.3	9.7	9.4	8.1	9.1	9.6	9
South Carolina	10.3	10.4	13.8	8.6	.....	.....	5.7	8	10.1	10
Georgia	10	10.2	11.5	9	8.6	10	7.5	10.2	9.9	9.1
Florida	10.5	.....	.....	.....	.....	.....	6.5	11	10	11
Alabama	10	10.8	13.9	10.3	.....	.....	7.4	8.5	10	10.1
Mississippi	10	9.6	16.6	10	.....	.....	6	9.3	10	10.3
Louisiana	.....	10	15	.....	.....	.....	10.7	10	10	15
Texas	14.6	.....	14	14	.....	.....	8	10.5	9.5	11
Arkansas	.....	10.2	10	10	.....	.....	9.5	10.7	10.4	10.1
Tennessee	.....	9.1	7.3	9.1	10.5	10.2	8.6	9.9	9.8	9.7
West Virginia	.....	5.6	5.5	10.5	10	9 8	9.1	9.2	9.6	9.8
Kentucky	10	6.2	5.2	8.9	9.8	9.4	9	10	9.9	9.9
Missouri	.....	6.7	10.1	11	10.6	9.3	10.1	9.7	10.1	8.6
Illinois	.....	4.7	9.2	10.5	11	10.4	8.5	9.4	9.5	8.6
Indiana	.....	3.8	12.8	10.4	10.1	9.8	9	9.7	9.8	10.1
Ohio	.....	6.3	7.6	9.1	11.2	10.2	8.9	9.3	9	9.8
Michigan	.....	6	7.7	9.7	12.5	11.2	9.7	9.8	9.7	9
Wisconsin	.....	5.2	.....	9.8	17.4	10.1	9.5	10.3	9.8	9.9
Minnesota	.....	10	.....	9.6	14.3	11.8	10.9	10.4	10.3	.....
Iowa	.....	8.4	.....	9.4	13	9.3	9.3	10	10	10
Kansas	.....	9.5	13	12.8	.....	.....	10	9.7	10.1	9
Nebraska	.....	7.7	7.8	7.5	.....	.....	10.1	10	10.2	6.6

EXTRACTS FROM CORRESPONDENCE.

THE TAPPAHANNOCK WHEAT.

Braxton county, West Virginia.—We have been trying the Tappahannock wheat for the past two years in the small quantities sent out from your department, and the conclusion is that it is ten days earlier than any other kind, better grain, well filled, large yield, and free from rust and weevil, and is well adapted to this country. The red Mediterranean has also been tried, and found to be early, well filled, large grain, and free from rust and weevil, but not as large yield as the Tappahannock, but well suited to the country. The old Blue Stem has been much injured by the red weevil in the same field with the Tappahannock and red Mediterranean. I think the Tappahannock will prove a valuable acquisition to this section, and under this impression we are careful with what little we have, so that all our farmers may get a start.

Coffee county, Tennessee.—The Tappahannock wheat, I am satisfied, will prove a success in this latitude. From the package sent me in 1866 I raised seed for about four acres. Last season it stood well through the hard winter, and has made beautiful wheat as well as a good yield. The white Mediterranean and white California sent me last fall were both carefully planted in drills, came up and grew luxuriantly, but did not stand the hard freezes of winter, and I did not save a grain of it.

Amelia county, Virginia.—Of 20 varieties of wheat tried here the preference is given to the Tappahannock, which is now to be found on nearly every plantation. Sown properly from the 20th of September to the 10th of October, it will ripen from the 10th to the 25th of June, and in most cases escape the rust, which destroys much of our wheat, and this year injured late-seeded crops.

Hardin county, Ohio.—From the quart of Tappahannock wheat sent me from the department I have raised 20 quarts of handsome, plump grain, fully equal, if not superior, to sample. This must be the grain for our section.

CROPS IN KANSAS.

Davis county, Kansas.—Our principal crop (corn) during the month of July was almost completely cut off by the extreme hot winds. During the first part of the month the corn appeared to wilt and the leaves curled up; in a few days the green, rich color, common to our cornfields, vanished, and, instead, the dry, parched, earless and dead stalks only were to be seen, where, in June, we prophesied the largest corn crop ever raised in Kansas.

Many of our farmers believe it is not drought which has destroyed our crops; they argue that the chinch bug is the destroyer. I am inclined to believe, however, that the prime cause of failure is drought. Plenty of rain, in my opinion, would have enabled the crops to withstand all the attacks of bugs, &c.

During a residence of 12 years in Kansas I have never seen so complete a failure of crops as we have this year. I am told that in eastern Kansas crops are good. I have been considerably over the western portion of the State and pronounce it a great failure of crops.

The grasshoppers are now upon us by the million, and are harvesting the little corn not destroyed by the drought. Many of our late immigrants on the border will be compelled to return this fall to the eastern States to winter. Many are discouraged, but the greater part of the farmers will remain and try again next summer.

TOO MANY ACRES.

Our Marion county, Iowa, reporter, writing in reference to the condition of farm crops in that county, adds:

We have again a very striking exemplification of the very foolish, in fact almost insane, rage for putting out large crops in acres. At least one-third of the small grain in this county has suffered damage and loss from want of care and attention at the proper time. Small farmers, and moderately large farmers, have their work well in hand, while the large farmers are literally and univerally overrun and run over with work that they cannot get done in season, and perhaps not at all.

GRASSHOPPERS IN NEBRASKA.

Merrick county, Nebraska.—Corn, buckwheat, beans, potatoes, apples, peaches, grapes, &c., are a total failure. I will give you the facts on my little farm. From Monday, 3d, to Friday, 7th of August, the grasshoppers destroyed 45 acres of corn, which was better than an average crop, four acres of potatoes, one acre of Lima and other beans, 2,430 head of nice cabbage, one acre of watermelons, one acre of onions, one acre cucumbers, one acre ruta bagas, two acres buckwheat, and all the herbs in my garden, as well as grape-vines, and took nearly all the leaves from more than 50,000 shade trees of various kinds. They even "chew tobacco," for, in company with a green worm and green man, they chewed up my Connecticut seed-leaf tobacco plants. My sorghum stands unhurt. I will say that on Thursday, 6th, when they commenced leaving for the south, they obscured the sun somewhat. Their line of operations extended east from here (140 miles) to Omaha, and west about 100 miles.

CHESTER WHITE PIGS.

Dr. Edwards, of Allegh any county, New York, reports the gain of 226 pounds in 88 days, by a pair of Chester county white pigs, upon 315 pounds of meal and a pailful daily of whey or sour milk. The meal was boiled with a little salt. Their weight, July 10, 1867, the time of purchase, was, respectively, 65 and 55 pounds. For a portion of the time they also had the run of a clover field.

HOG CHOLERA.

Coffee county, Tennessee.—The crop of stock has been reduced within the last two months by cholera, so called, the destruction still progressing.

THE POTATO BUG.

Green Lake county, Wisconsin.—The potato bug (*Ten-line Spearman*) continues its ravages till many fields are destroyed, and others partially so. A remedy has been found, however, which promises to check if not entirely remove them. It is as follows: One part Paris green (paint, so called) and five parts ashes, mixed and sifted on the hills while the dew is on, in the morning or evening. So far as used it seems effectual, and I think the trials have been numerous enough to warrant a recommendation of the remedy.

Brown county, Wisconsin.—The potato bug has destroyed all potato crops, except in those fields small enough to be picked over daily by hand.

Vernon county, Wisconsin.—The potato crop almost entirely destroyed by bugs.

Douglas county, Wisconsin.—The potato bugs have made their appearance in small numbers, but we think they have come too late to do the crop much injury. The bug is destroying the crop in Bayfield county, 20 miles east of us down the lake, and 18 miles west of us it is doing great damage.

Jackson county, Wisconsin.—The potato bug and drought have severely injured the crops.

Bayfield county, Wisconsin.—The potato bug has destroyed nearly all our crops.

Appanoose county, Iowa.—The potato crop is almost ruined by the ravages of the potato bug, both the Colorado and the old striped bug, the latter literally covering the ground, and flying from place to place, and even swarming in the dwellings, gardens, &c.

Des Moines county, Iowa.—The potato bugs (the old kind) in immense numbers have stripped our potatoes of their leaves.

Lee county, Iowa.—The old-fashioned potato bug is very numerous, and is doing much damage.

Sangamon county, Illinois.—The Colorado potato beetle is not so bad as last year, but the dry weather and the old-fashioned potato beetle (*Lytta vittata*) are injuring the crop not a little.

Cumberland county, New Jersey.—A few of our potato patches have been attacked by the potato bug and been completely stripped of their leaves.

Morrow county, Ohio.—Potatoes never promised better until two weeks ago, when the striped bug appeared and has been very destructive.

Mahoning county, Ohio.—The potato bugs are very bad through the county; many fields have been eaten up.

Marion county, Ohio.—The potato bugs are doing great injury to the crop, but more potatoes have been planted this year, and many are doing well.

Geauga county, Ohio.—The potato bug has made unusual ravages in some parts of this county.

Tippecanoe county, Indiana.—Late potatoes nearly a failure, owing to the bugs and drought.

THE SPANISH FEVER.

SODORUS, CHAMPAIGN COUNTY, ILLINOIS,
August 4, 1868.

Your favor is received, saying you have Professor Gamgee investigating this desperate malady now killing our cattle.

After a careful consideration of all the facts in the case, I offer for your consideration the following:

SYMPTOMS WHILE LIVING.

First. Fever, dead appearance of the hair, and a slight swelling between the inferior maxillary bones, accompanied, in most cases, with a dull look of the eyes.

Second. A hacking cough, drooping of the head and ears, dragging, reeling walk, breathing hurried, and in odor resembling the first stages of gangrene in man.

In milch cows, a sudden failure of the milk; the animal shows distress, frequently lying down, and almost always rising immediately and walking about. In most cases the bowels are found constipated, but are normal; others scour; in nearly all the urine is bloody.

To a close observer it will now be seen that the animal is fast passing into the third stage. From the first, all will be struck with the sudden failure of flesh.

Third. The breathing is more hurried, panting; rises with great difficulty; breath very offensive; nose resting on the ground, a yellow mucus constantly running from the nose. If the animal can rise at all it gets up first with its hind parts, and showing evident signs of paralysis of the whole body, with almost constant jerking of the tendons and reaching of the head and neck. At this point death soon comes to the poor sufferer, some dying in spasms, some are delirious.

POST MORTEM.

In three I found the right lung slightly diseased, but not sufficient to cause death. I may as well state here that the lungs are not the seat of the disease. The slight cough is caused by the free flow of mucus in the air passages, being caused by a suspension of vital power. The air passages and lungs of all are found covered with this yellow mucus. In some, the kidneys are found enlarged; in all they are very black. The covering does not seem to have undergone any organic change, but the pulp is congested, acid, and very tender. Here, too, you find effusion, the cavity being full of bloody urine. More marked traces of disease are found in the spleen; in all cases it is found enlarged, pied, and very tender. A very characteristic change is found in the bile, it is converted into a black, thick, granulated mass, that will hardly run, and the portion of liver to which the sack adheres is gangrenous.

The bladder does not show any change in texture, but contains a large amount of bloody urine, generally very offensive to the smell. In some cases the bladder is enormously distended, the bladder and contents of one weighing nine pounds.

In some the heart and its covering show evident signs of a diseased condition of the blood, to wit, the *pericardium* and heart being spotted by blood *extravasations*. In a few cases the same have been found under the skin. I will here remark, before I proceed any further, that sufficient evidence is here found to prove conclusively that if it is not a blood poison from the first, the vitality of the blood is soon destroyed in part.

In all cases I found the liver congested, tender, and the pulp black. In some it is normal in size. The spinal cord, as far as examined, in color is normal, but too soft; in some places the covering shows congestion, and here, too, is found the same yellow effusion. In one, the thyroid gland was found enlarged, but from what cause could not be told.

In the second stomach evident traces of a high grade of inflammation is found, probably from some local poison, as the manifolds in nearly all are found mortified.

In a few cases I have seen drops of blood standing on the animal before death, and reliable men tell me of the same.

The nostrils, fauces, and respiratory passages are found covered with this yellow mucus, or serum. It is also found deposited in the *areolar tissue*, and in a few cases large quantities were found in the cavity of the body. Nor is this strange when we take into consideration the congested condition of the liver and yellow appearance of the fluid.

The above are the anatomical conditions of the parts so far as I have been able to go. Not having time to investigate all, I here offer you a few facts in regard to the Texas cattle:

First. Are they diseased?

They are; at least some of them, and this can be proved by good men. I deprecate the necessity of having to differ with high authority. But when proof looks you in the face as plainly as it has in this it should not be passed by or covered up. Go to the farmers, and all who have seen these cattle, and they will tell you that the Texas cattle, when sick, had the same symptoms that our sick cattle had. Ask the men that had them in Chicago what was the matter, and they will tell you that they had been hurt on the cars. Who ever heard before of sick steers by shipment only 230 miles by rail and there were between two and three hundred died.

One man at Tolono told me "he had skinned 170 himself," and that "part of them were injured so as to cause death, but their vital organs were healthy." Also, that part had died of disease, and the same organs in the Texas cattle

were found diseased as in our native cattle that had died of what we call Spanish fever. One Texas steer was so badly diseased as to cause marked attention, and his spleen was found to be three feet long and fifteen inches wide. If it should become necessary, I can, at any time, bring forward the affidavits of good men in proof of the above statement.

This disease is not like the *rinderpest* of Europe, nor is it like the *pleuro pneumonia* of the eastern States. Any careful observer can readily detect the difference in the symptoms. It is to be regretted that some of our agricultural papers have been duped into the error of calling them the same disease.

So far, the facts point to the Texas cattle being diseased, and it is probably confined to localities in the south. That part of them were diseased is proved by post mortem examination.

It is a singular fact that the diseased cattle will eat dry food to the last. I saw one in particular that took water and old corn, chewed her cud, and licked herself a few hours before death, and this is not an uncommon thing.

I am sorry to be compelled to differ so widely with Professor Gamgee. As to his theory of eating certain kinds of plants in the south, not injurious to them, and retained until they arrive here, when it is thrown off in the excrement and proves poisonous to our cattle, it is not probable. If it were true, the meat of the Texas cattle would be poisonous to man.

Any plant containing sufficient poison to render the *urine* or *feces* poisonous to other cattle, three to twelve weeks after eating it, would poison the cattle that eat it.

If these cattle leave Texas in March or April, feed on dry feed on the way, and arrive here in July or August, they will hardly have the same food in them that they ate in Texas.

It is now proved that the native cattle will take the disease from the Texas cattle when separated by a fence. This being the case, how can it be the droppings from the Texas cattle? These native cattle have not been out of their pasture since the Texas cattle came, nor for some time before.

The Professor says: "Native cattle will not give it to other native cattle." How does he know this? His first visit to Tolono was on the 1st of August, and the second visit to Tolono and this place on August 5th, and his report was made on the 7th, two days after his last visit. The first case of fever was on the 27th of July, being eleven days to test the reality of our native cattle giving the disease to others. He hints at characteristic signs of blood disease, but will not, as yet, own it.

May not a solution of this desperate malady be found in some one of the parasite tribe, developed under certain conditions, and killing both Texas and native cattle, when circumstances favor its development?

The above is worthy of consideration.

We have the trichina in the hog, and the proof that the hog will fatten with this parasite in it, while if man partakes of the meat infested it is sure death. It would seem that under some peculiar law of development they generate in man faster than in hogs; so it may be with the Texas cattle disease, and if it should prove to be true the changes could be accounted for.

The above is submitted for consideration, feeling thankful if I can only be the means of causing investigation to be made, whereby the cause and cure of this awful malady may be found out and made public.

Respectfully,

A. CATRON.

Hon. HORACE CAPRON,
Commissioner of Agriculture.

Our Ford county, Illinois, correspondent states that the Spanish fever has been prevalent in that county for some time past; about forty cows having died

from it, up to the time of writing, in the village of Paxton, and one hundred head of cattle within a semicircle of five miles from northwest to southeast. The disease can be traced directly to Texas cattle landed at that station from the Illinois Central railroad. The same disease prevails in Iroquois county, and from the same cause.

DISEASE AMONG HORSES AND MULES.

GEORGETOWN, WILLIAMSON COUNTY, TEXAS.
September 4, 1868.

SIR: In one of my reports to the department last fall I called attention to a fatal disease that had made its appearance among our stock horses, running on the range in this and adjoining counties. It was first introduced in this section by the cavalry horses of San Antonio and Austin. About 20 per cent. of the one and two year old colts died from this disease last fall and winter.

It is now more malignant than ever, mostly confined to the young colts, and is spreading fearfully throughout this portion of the State. Out of 50 young colts on my ranch 20 have died, and several more probably will die. Not over one-half that are taken with it recover, and those that have it late in the season go into the winter so poor they are apt to die before spring. It is very seldom that the older stock take it; when they do it appears to be lighter than with the colts. So far I know of no remedy that appears to be of much benefit. We gave plenty of salt and sulphur; some of my neighbors think it makes the disease lighter and less fatal, but I cannot discover it.

The first symptoms are, the animal appears to droop, and in a few days swells between the fore legs near the breast, often as large as a man's head; this swelling is very hard. It seldom breaks, but sometimes discharges a little yellow, bloody water. After about ten days the swelling appears to dry up and become honey-combed; or rather, small, hard, white, corny substances protrude one-eighth of an inch over the diseased parts. I have counted over fifty of these cores (or whatever they may be called) on a space six inches square. Some, when apparently nearly well, swell out the second time, which generally proves fatal. They occasionally swell on other parts of the body or head, but not often. My observation is, that the best blooded stock suffers most.

Is this a new disease? If an old one, what is the remedy? Can you throw any light on the subject? I wish to draw the attention of the scientific to this most fatal disease.

I will add that most of the young colts became very tickey in the month of June. To remove these we used a preparation of tallow and sulphur. One or two applications freed them from these pests. Could it be that the head of this insect, by remaining in the flesh, poisoned the blood and produced the swelling? I think not, from the fact that we have generally used the same remedy for 17 years with no such consequences.

I fear that, unless some remedy is discovered for this fearful malady, it will sweep over the vast prairies of our State, and the losses may equal those of the Old World last year, with the rinderpest among their cattle. I will watch this disease closely, and report to you, from time to time, its progress.

R. E. TALBOT.

Hon. HORACE CAPRON, *Commissioner.*

Waterproof, Tensas Parish, Louisiana.—The disease called "charbon" has commenced its ravages in our immediate neighborhood. It attacks mules, cattle, and horses, in the order stated. There is a prospect now of its making a clean sweep of all the mules in the county. It is spreading from one place to another rapidly, and as yet no one has succeeded in curing any cases. The animal first shows signs of being sick by drooping and lagging. On close examination there will be found a lump somewhere about the neck or shoulders, or perhaps in the flank. This swelling grows rapidly. The animal has a high fever, and generally eats and drinks to the last. Some die within 12 hours after the disease manifests itself, and some live five or six days. Generally they die in 36 to 48 hours. The cause of this fatal disease is yet wrapped in mystery.

MARK ANDREWS, M. D.

EXPERIMENTS WITH THE POTATO BUG.

Edwin Reynolds, our Fond du Lac, Wisconsin, correspondent, writes as follows of his experience with the potato bug:

I planted potatoes May 7 and 8; the field 30 by 8 rods; planted east and west. In the centre I planted 10 rows of early varieties, which came up much sooner than the main field, and some days earlier than the Early Goodrich, planted side by side at the same time. On the 26th full grown bugs (two) made their appearance, the field being 80 rods from where potatoes had been before; 27th, ten were destroyed; 28th, thirty; 29th, sixty-seven; 30th, thirty; 31st, fifteen—up to which time all were on about a rod of ground. June 1, two other small spots were infested, when I came to the conclusion that the price of potatoes was eternal vigilance. Therefore, with two paddles in hand, I scrutinized every hill myself, destroying bugs and larvæ until the 22d, when the larvæ that I had overlooked became crawling slugs and so numerous that I resorted to a pan and stick, knocking them off and destroying them. This I practiced until July 5, when I was told by a farmer from Iowa that one pound Paris green and four pounds dry ashes sifted and well mixed, applied to the infested vines while the dew was on, was sure death to the bugs and no injury to the vines. I tried it, and to my great satisfaction found it to be so. I used the composition, passing over the field twice a week, and kept the bugs subdued until the leaves had become too tough for their food, and they have disappeared.

It will be noticed the bugs appeared in my field in patches. Many conjectures arose in my mind, as to whether they were deposited in the ground last fall or flew in the night from one field to another. I came to the former conclusion, for had they flown in the night they would have been more evenly distributed over the field.

I would recommend planting in fields of long narrow strips, and, at least once in two rods, plant the earliest varieties across the piece, that the bugs in the ground may be destroyed before the main field is up, as they will surely concentrate on the earliest varieties. I would further recommend that planting be done with single eyes, say five in a hill, that they may grow single stalks in order to more closely detect the larvæ as they are deposited on the under side of the leaves.

The most convenient method of destroying the bugs is by using a pair of tongs made of nail-rod. With such an instrument bugs and eggs can be kept off for some time with as little labor as using the Paris green and ashes, and saving the cost of the pigment.

A neighbor of mine planted potatoes on ground that grew potatoes the year before, and when covering them found from three to seven full-grown bugs on each potato.

PISCICULTURE.

In a recent letter to the Commissioner, Seth Green writes as follows in reference to his labors in pisciculture:

Last spring I visited the James, Potomac, Susquehanna, Delaware, Hudson, Connecticut, and Merrimac rivers, and find that all the fisheries are failing, a less number of shad, herring, alewives, etc., being taken each year. The chief cause of this decline is the great amount of fishing tackle used on the rivers, the take being greater than the increase. The rivers can all be restocked artificially, but not without legislation. The fishermen want to take the last fish, but no one of them will do any hatching for fear some other fisherman may take some of the fish.

The season varies in all the rivers. After a certain season in each river there should be no fish taken except for artificial propagation. The rivers must be farmed from one end to the other. You might as well undertake to raise produce on one farm to feed a country as to hatch fish enough at one fishery to stock the river. They should be hatched at every fishery, and when the fishermen put back in the river 1,000 fish for every one taken out there will be plenty of fish, and that will be done when the legislatures make laws recommended by the commissioners of fisheries. But when the fish commissioner prepares a bill, after long experience and careful consideration as to what is requisite and proper, the legislator thinks a few minutes to see if he or his friends are to be interfered with, and strokes his beard very knowingly; and there are so many such to convince that you are right, that it is almost impossible to get a bill through.

I think the hot weather has killed a great many fish in all the rivers and bays. On the 12th, 13th, 14th, 15th, and 16th of July, the water in the Connecticut river stood at from 82 to 88 degrees. I saw many dead shad in the river, and the fatality must have been much greater in the less rapid rivers, bays lakes, and ponds, and I think it a serious loss to the country.

I began to operate June 18, at Holyoke, on the Connecticut river, and hatched about

40,000,000 shad by July 12, when the water became so warm that it cooked the spawn in the boxes. Shad cannot be hatched successfully in water warmer than 78 degrees. Shad spawn cannot be carried more than two days' journey. All the water of this country can be filled with fish adapted to them. Every acre of water is worth two acres of land if properly farmed. Most persons suppose that it can be done at trifling expense. It can be done cheap, but it cannot be done for nothing. Spend one-thousandth part of the sum spent in tilling the land, in tilling the water, and fish may be sold in our markets at two cents per pound.

I hatched about 500,000 trout last season and sold about 500,000 impregnated trout spawn. Those who followed my directions hatched a fair proportion. I send the spawn to any part of the United States by express, and have sent them to the Rocky mountains by mail and express. The young fish can be sent almost any distance if sent in January or February. In hot weather they do not carry well. I have trout growing in almost every State in the Union. All the spring streams in the country can be stocked with trout I spent two weeks on the Hudson river and hatched a few shad, but I cannot do anything without legislation.

SCUPPERNONG WINE.

The following is the analysis of a sample of Scuppernong wine forwarded to this department by Mr. J. W. Page, of Bath, Maine:

Suspended matter	0.13	per cent.
Alcohol, (by weight)	10.23	do.
Do. (by volume)	12.50	do.
Fruit sugar, (glucose)	2.50	do.
Cane sugar	2.90	do.
Extract	8.02	do.

In reply to sundry questions in reference to the manufacture and treatment of the wine, Mr. Page writes as follows:

I will answer your inquries about the Scuppernong wine in the order in which they are made.

1st. The wine was pressed the last week in September, 1863; the cask kept full and flowing at the bung until October 11th, when it was plugged up, a gimlet-hole vent being occasionally opened the following three or four days, when it also was stopped. On the first of November it was taken from the first floor to the second floor of the house, where it remained subject to all the variations of the seasons of the low country of Carolina, until it was shipped north in December, 1865. Since that time it has remained undisturbed, on the bilge, in a cool inner cellar where the temperature is rarely, if ever, above 65° in the summer, and never low enough in the winter to freeze fruit or vegetables. This afternoon a thermometer left in the cellar indicated 64°, while out of doors in a north and shady exposure, from 12 m. to 4 p. m., it stood at 84°; the previous ten days the outside temperature ranging at sunrise from 56° to 68°, and at noon from 70° to 93°.

2d. Whether there was "any *deposit of tarturic acid* left in the cask after bottling?" The wine was drawn off with a syphon, leaving a gallon or more of dregs, which was poured out and the cask filled with water, with no examination for any deposit of acid.

3d. "Was any means employed to check fermentation when first put in cask?" The juice was put into a new 20-gallon cask, which was first rinsed with a single bottle of French brandy. The wine was not further manipulated. It was tapped for sample in December, 1863, December, 1865, and in the spring of 1867.

4th. There was no fermentation on the skins.

5th. "Did you press the grapes slightly, so as not to break the pulp?" The grapes were submitted to severe pressure, so as, probably, to break much of the pulp; but the pressure was not exhaustive, as three gallons of water were afterwards added to the *mash*, and twelve gallons of additional juice obtained, from which, with ten pounds of sugar added, a sweet and more cordial wine was made.

The grapes were carefully selected with special reference to a trial of their richness in the wine-producing qualities, and no foreign aid given except the preparation of the cask mentioned. I judge a richer product might be obtained if the pressure was so regulated as to bring out only the luscious juice between the skin and the pulp without adding the qualities of the last two; and quite a variety might be made in the qualities of Scuppernong wines by different combinations of the three parts of the berry. The grapes from which the wine was made grew in the vicinity of Newberne, North Carolina.

I have known the Scuppernong grape and the wine since my first residence in North Carolina, in 1848, and have met with the bearing vines on the Hatteras sand-spit, on Roanoke island, in its palmy days before the war, through the low country, on the first range of hills near Halifax and Warrenton, and in the country around Raleigh, and have never known the vine to be subjected to any other treatment or care than to furnish it the support of a strong horizontal trellis and allow it to grow *ad libitum*. The largest specimens of vines I remember to have seen were at Jones's springs, near Warrenton, where three vines covered an immense trellis of more than a quarter of an acre, and yielded abundantly. From what I have observed of the quality of the fruit, I judge that the Scuppernong responds considerably to variations in locality, and if the wine ever becomes established in the markets of the world, the brand of some localities will gain a marked preference.

At the risk of being tedious, I will mention a single vine, the fruit of which came under my observation the year following the war, 1866, when I was filling the office of United States pension agent, at Raleigh. An old lady, past her 80th year, rode into town one morning to consult me in reference to the pension laws for the soldiers of 1812. She afterwards sent me a basket of grapes from her farm. They were purple grapes, but of the Scuppernong variety, with its peculiar skin and flavor, and growing single, or in those sparse clusters peculiar to this grape.

I had never before met with what was called the purple Scuppernong which appeared so well as or would compare favorably with the white variety in richness and flavor. The berry was of a dark, rich color, round and full, larger than the ordinary white variety, the skin thinner, the pulp smaller, and the intermediate juices much more abundant and *more luscious;* which last would seem to be extravagant praise.

In answer to my inquiries of its history, she told me that many years ago she obtained from friends in the "low country" eight Scuppernong vines, and that when they came to the period of bearing seven produced the common white, but this proved to be a purple variety. I was so struck with the peculiar richness of this splendid grape that I intended to have obtained cuttings for some grape culturists to propagate from, but resigning my office and leaving at an unfavorable season, I neglected it. Several interested in the grape culture, including Mr. Saunders of your gardens, to whom I have mentioned this vine, have thought it worth attention; and I mention it here that you may have cognizance of an individual vine which might be worthy of your attention, and might not otherwise come under your notice.

SAN JOAQUIN COUNTY, CALIFORNIA.

Our San Joaquin correspondent, Dr. E. S. Holden, writes as follows in reference to the resources of this county:

The sectional area of this county is 1,452 square miles, or 929,280 acres; about one-half of which is agricultural land, the balance tule and foot hills. The soil is principally adobe or clayey, some sections sandy and sandy loam, and on the river bottoms alluvium. The reclaimed tule land is deep and rich, almost a perfect compost; and 108 bushels of wheat have been raised on this land to the acre. From two to three crops of vegetables can be raised in the year.

The sandy sections are producing very large crops of wheat and barley this season, which is very wet. Wheat is quite free from disease or smut. Farmers have generally adopted a better system than heretofore, by selecting pure and plump seed, and soaking wheat a few minutes in vitriol water.

Harvesting commenced June 25, about two weeks earlier than usual, owing to a cool spring and summer.

It has been well tested that the soil and climate of this county are perfectly adapted to the sure and profitable culture of the semi-tropical fruits, flax, hemp, sugar-beet, sorghum, tobacco, mulberry, silk-worm, &c.

Raising the sugar-beet for sugar is now attracting much attention all over the State; also, the sorghum for sirup. The reclaimed tule land, sandy loam, and river bottoms produce an immense crop, and within a few years this State will export these home-made products.

The culture of the mulberry, the silk-worm, and the manufacturing of silk will be one of the first, if not the first and most profitable, of the industrial arts. The mulberry tree flourishes well in most of our soils, and the worm is free from disease. Large orders are often received from France and Spain for the worms and eggs.

But little corn is raised in this county. Its culture is confined to the river bottoms.

Rye is not raised to any amount, not being yet used much in this State. Large crops of it can be grown.

The oat (wild) is indigenous, and found in all sections of the State, on the plains and hillsides. More than one-third of the hay consumed is from the wild oat, worth from $10 to $25 per ton, according to the season. This year $10 is the market price.

Barley is the great horse feed, and is usually raised in very large quantities, selling from 80 cents to $1 per 100 pounds, worth now from $1 80 to $2 per 100 pounds. A small surface was cultivated this year, farmers preferring to plant wheat.

Summer fallowing is becoming the custom, farmers having found it the only safe and sure mode to secure crops in all seasons.

Wheat and barley are sowed in October, November, and December, and are called winter grain. No spring grain in the State. Sometimes these grains are planted in February and March, in new ploughed ground, but there is no certainty of a crop.

The grasses are wholly indigenous, principally red and burr clover, red-top and timothy. No grasses except as garden plants cultivated here.

Potatoes and beans are not much raised in this county, although in many sections large crops can be raised. Wheat and barley are yet the favorite products.

Pasturage is yearly lessening, owing to the cultivation of grain and mixed crops.

Farm stock is fast improving in quality by higher breeding, but decreasing in quantity. The wild or mustang race is about extinct in this county.

Sheep, like all farm stock, are healthy—no disease. Farmers and stock raisers are yearly increasing their flocks in quantity and quality, breeding to thoroughbred French and Spanish Merinos, Southdowns, and Cotswolds. The cost of keeping sheep is but a trifle aside from herding.

The celebrated Cotswold ram, "Golden Fleece," from Mr. John D. Wing, Dutchess county, New York, has recently arrived in this county, together with a small herd (14) of the same breed. They are splendid animals and much admired here.

Apples do not thrive well, the climate being too warm, or rather the summers are too hot. All stone and small fruits do well, producing in quality and quantity equal to any other section of the State, and far better than in the eastern and western States. The peach suffers in very hot seasons, and is here a short-lived tree, owing to its early maturing and over-bearing.

Blossoms of the apple and stone fruits were injured by late frosts.

Grapes (over 100 varieties of which have been cultivated here) do as well in this county as in other sections of the State, and California's success in grape production is unparalleled either in quantity or quality.

Cotton has been raised in this county, and the experiment proved satisfactory, but it is believed by some that the late frosts, which happen in some seasons, would destroy it. Others, who are well posted in the culture of cotton in the southern States, think that a sure and profitable crop can be grown throughout the southern counties to Mexico, and that this State can and should raise enough to manufacture, not alone for our own wants, but sufficient for the Pacific coast.

THE COTTON TRADE IN 1868.

The following is an exhibit of the cotton imports into Great Britain for the first quarter of the present year. It shows a marked increase in the supply from the United States, and a material advance in the relative proportion obtained from this country. In fact, the old predominance is almost shown, 69 per cent. of the entire importation being brought from this country, against 55 per cent. in the same period of 1867, and 53 per cent. in 1866.

From whence imported.	1866.	1867.	1868.
United States, cwt	1,078,955	999,403	1,681,830
Bahamas and Bermuda, cwt	2,602	42	41
Mexico, cwt	2,850	.....	.....
Brazil, cwt	149,701	114,778	151,178
Turkey, cwt	41,374	33,215	4,217
Egypt, cwt	246,897	454,005	322,881
British India, cwt	457,450	147,030	238,032
China, cwt	.....	2,041	.....
Other countries, cwt	46,580	64,705	32,627
Total	2,026,409	1,815,219	2,430,806

PREMIUMS FOR WHEAT-GROWERS.

Messrs. Moore, Foote & Co., of Detroit, Michigan, having placed at the disposal of the Michigan State Agricultural Society $400 to be awarded in three premiums for the best white winter wheat, in quantity and quality, raised upon

any five acres of land in that State for the year 1869, the society announce the premiums, with the rules and regulations by which competitors are to be governed, as follows:

For the best five acres of white wheat sown in the fall of 1868, and harvested in 1869, of the crop of which not less than five bushels shall be exhibited at the State fair of 1869, $250; second best, do., $100; third best, do., $50.

Competitors must be members of the State Agricultural Society, and all entries must be made with the secretary of the society by December 1, 1868. Each entry must give the name and post office address of the person making the entry, the size of the lot in which the wheat is situated, the name and quality of the soil, the time the field has been cleared and the crops grown in preceding three years, the tillage during the preparation for premium crop, the kind of seed sown, the quantity used upon the five acres, the method of sowing, by drill or broadcast, and the amount of plaster or other manure or top-dressing used.

When the grain is placed on exhibition each sample must be accompanied by a bunch of the heads, with a statement showing how the crop was harvested, whether by hand or machinery, how threshed and cleaned and by what machinery, the number of bushels by weight of the five-acre crop and the number of bushels per acre. Competitors will be examined under oath if necessary.

IMPORTANT INTERNATIONAL EXCHANGES.

The Commissioner of Agriculture has completed arrangements for exchanges of cereals, rare seeds, and medicinal and other plants, with various institutions and several governments of different divisions of the globe. These arrangements include the governments of Austria, Prussia, China, Japan, Guatemala, and British Honduras; the botanical gardens of Melbourne, in Australia, and of Kew, in England; the India museum, in London; the Cape of Good Hope Agricultural Society; and the commissioner of patents of the Argentine Republic. The hearty co-operation of scientific men representing these governments and institutions has been secured.

These arrangements will be carried out mainly through the active assistance of the following named officials:

C. F. Loosey, consul general of Austria, New York.

W. D. Poston, agent of the department, and S. De Champs, secretary of the Chinese commission.

S. C. Golding, secretary of Cape of Good Hope Agricultural Society, Cape Town.

Superintendent of the botanical garden, Melbourne, Australia.

Dr. Forbes Watson, secretary India Museum, London, England.

Dr. Hooker, secretary Kew gardens, London, England.

United States vice-consul at Hakodadi, Japan.

Royal minister of agriculture, Berlin, Prussia.

General Fitz-Henry Warren, Guatemala.

William S. Meckling, Belize, British Honduras.

George Latimer, Saint John's, Porto Rico, West Indies.

David Maxwell, commissioner of patents, Argentine Republic, Buenos Ayres.

Dr. Joseph Cooper Reinhardt, Campinas, Brazil.

SHEEP FARMING IN TURKEY.

The British consul at Adrianople gives some interesting details of sheep and goat farming in that district. He gives the number of sheep at 4,512,000, and of goats at 778,000; the tax on which, at four piasters each, yielded £171,297

in 1867, £10,596 more than that of the previous year. It is estimated that sheep husbandry yields 20 per cent. profit; and the number of sheep has steadily increased for the last ten years.

Large quantities of butter and cheese are made from the milk of sheep and goats, and sent to Constantinople; sheep and lambs are also sent to Constantinople for consumption. There is an active demand for the skins of lambs and goats, which are salted and packed for the French and English markets. The average cost of a flock of 1,800 ewes, 150 rams and 50 goats, is about $2 per head; the cost of keeping, &c., about 70 cents per head; and the total value of produce, exclusive of skins, $2,500, or $1 25 per head.

The two prominent breeds which are considered by the natives as distinctly local, are the Kavirjik, which bear some affinity to the grade Merinos, and the Karabash, which are black faced, and not unlike the sheep of Macedonia and Thessaly. The wool of the former is most esteemed, being long, soft, and elastic, and twisted in ringlets, which gives the name to the breed.

AMERICAN DAIRYMEN IN SWITZERLAND.

American enterprise appears to be looking to other continents for new spheres of activity. A company of Americans has located a milk-condensing establishment at Charn, by the lake of Zug, in Switzerland, intended to contribute to English consumption particularly. George H. Page, of Dixon, Illinois, is superintendent of the "Anglo-Swiss Condensed Milk Company." Milk from the Alpine region is celebrated for its richness and flavor. About 400 gallons daily is received from the peasants of the neighborhood, and manufactured so carefully that a specimen kept twelve months, as reported by Baron Liebig, has been churned into excellent butter.

METEOROLOGY.

[Compiled in the Department of Agriculture, from reports made by the observers for the Smithsonian Institution.]

JULY AND AUGUST, 1868.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and rain fall, (in inches and tenths,) for July and August, 1868, *at the stations named. Daily observations made at* 7 *a. m., and* 2 *and* 9 *p. m.*

[We go to press on the 17th—reports received after 14th must be omitted in the Notes, those after the 17th will be used in the Annual Report and in the Smithsonian Reports.]

States and stations.	JULY, 1868.						AUGUST, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MAINE.		°		°	°	*In.*		°		°	°	*In.*
Steuben	4	81	23	52	63.0	2.40	24	81	27, 28	50	64.9	3.80
West Waterville	5	96	25	59	71.9	3.15	2, 3, 25	86	28	52	68.8	0.96
Gardiner	5	90	23	58	69.3	1.87	3	82	28	53	67.5	1.06
Standish	14	97	23	54	73.0	3.70	2	89	13	52	.....	.....
Norway	{ 3,4,5, 12, 15}	94	6, 26	58	72.1	.....	3	88	12, 28	54	67.6	.....
Cornish	15	99	6	56	72.8	2.90	26	85	17, 18, 28	53	67.5	2.30
Cornishville	15	97	6	58	74.1	2.80	2, 3	84	12, 13, 14, 27	56	69.0	3.13
Averages	.....	.....	.....	.....	70.9	2.80	.....	.....	.....	.....	67.6	2.25
NEW HAMPSHIRE.												
Portsmouth	13	100	23	54	73.4	3.05	2	86	17	46	64.8	2.42
Stratford	15	102	6	58	72.0	.....	.....	.....	.....	.....	.....	.....
Goffstown Centre	15	104	1	63	75.4	2.40	3	92	17	56	72.8	3.20
Shelburne	.....	.....	.....	.....	.....	.....	2	93	18	42	.....	.....
Averages	.....	.....	.....	.....	73.6	2.73	.....	.....	.....	.....	68.8	2.81
VERMONT.												
Lunenburg	3, 13, 15	95	23	53	72.1	4.63	3	85	17, 28	49	67.2	1.81
North Craftsbury	14	101	25, 26	56	73.2	1.42	2, 26	84	17	44	64.8	2.20
Randolph	13	102	26, 28	57	74.7	1.97	3	89	17	43	66.4	3.56
Woodstock	13	94	27	52	71.8	.....	26	82	17, 18	47	64.2	.....
St. Albans	14	95	27	58	75.8	.....	25, 26	83	17	49	67.7	.....
West Charlotte	14, 15	107	27	64	80.0	2.13	.....	.....	.....	.....	.....	.....
Middlebury	5	90	26	57	73.5	1.91	2	79	17	48	66.4	2.17
Averages	.....	.....	.....	.....	74.4	2.41	.....	.....	.....	.....	66.1	2.44
MASSACHUSETTS.												
Kingston	5	102	7, 29	60	72.8	1.87	30	91	28	51	70.7	3.75
Topsfield	15	97	6	55	73.1	0.41	1, 3	88	27	53	69.2	3.09
Lawrence	15	96	6	58	72.0	1.41	30	85	28	47	69.3	4.45
Georgetown	12	97	6	54	75.2	0.70	2	92	28	53	70.8	3.75

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	July, 1868.						August, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MASS.—Continued.		°		°	°	*In.*		°		°	°	*In.*
Newbury	15	103	6	56	73.8	.....	.....	.....	.....	.....	.....	.....
Milton	5	98	6, 7	55	71.7	1.11	3	90	28	46	66.5	4.25
Cambridge	12	101	6	60	75.3	.....	3, 29	93	27	51	72.0	.....
North Billerica	15	97	6	56	74.2	.....	3	87	17, 28	48	70.6	.....
West Newton	5	105	25	60	78.8	1.26	.....	.....	.....	.....	.....	.....
New Bedford	5, 12	92	9, 10	61	71.2	3.66	1, 3, 30	82	17, 28	56	69.1	4.29
Worcester	15	92	6	60	74.0	1.08	3	83	28	51	68.9	3.57
Mendon	5, 12	92	6	58	73.1	1.20	3	85	27, 28	49	68.4	5.20
Lunenburg	15	98	7	59	75.1	1.90	3	87	17	53	69.6	3.30
Amherst	15	95	27	57	74.0	3.28	3	85	13	51	69.0	5.67
Richmond	14	98	9	62	78.5	2.82	2	90	25	56	73.6	7.10
Williams College	15	94	27	55	74.7	0.37	2, 3	84	17	48	67.9	3.46
Hinsdale	14	93	6	60	74.3	.....	2	85	12	50	67.3	4.25
Averages	.....	.....	.....	.....	74.2	1.62	.....	.....	.....	.....	69.5	4.31
RHODE ISLAND.												
Newport	12, 14	86	1, 2, 10	59	69.7	2.99	10, 14, 24	82	28	53	67.9	2.71
CONNECTICUT.												
Pomfret	5, 13	89	7	58	68.2	1.35	1, 3, 30	82	28	53	67.5	5.63
Columbia	11	98	6	58	76.1	.....	30	92	28	52	72.0	.....
Middletown	13	95	7	61	74.1	2.35	30	87	28	56	70.8	7.38
Colebrook	13	94	7	61	74.7	.....	2, 30	84	13, 17	52	68.6	.....
Waterbury	13, 15	92	27, 29	61	74.1	2.86	30	86	13	53	69.2	6.71
Averages	.....	.....	.....	.....	73.4	2.19	.....	.....	.....	.....	69.6	6.57
NEW YORK.												
Moriches	13	105	29	66	78.1	5.92	22	93	13	62	75.3	4.07
South Hartford	14	98	9	67	79.7	0.80	21	86	17	47	72.6	1.84
Troy	15	100	27	64	79.4	2.35	2, 19	87	17	54	71.3	3.85
Garrison's	5	96	26, 28, 29	66	77.4	1.63	30	87	13	57	71.3	6.23
Throg's Neck	5	95	28	66	76.5	.....	4	89	14	60	76.9	.....
White Plains	13, 15	90	27	65	72.8	.....	.....	.....	.....	.....	.....	.....
Deaf and Dumb Ins.	5, 13, 15	92	7	65	76.2	6.44	3	88	13, 17	60	72.9	8.31
Columbia College	5, 15	95	7	64	77.7	4.72	30	88	17	61	74.3	5.25
Flatbush	13, 15	94	24	62	77.2	5.27	20	89	12, 27	61	73.2	2.90
Newburgh	15	97	1, 7	68	78.3	1.62	19	88	17	62	73.3	5.88
Minaville	14	100	27	61	79.0	1.10	19	89	17	50	72.5	2.89
Gouverneur	14	98	22	57	75.7	1.91	26	84	12	52	66.9	1.25
North Hammond	2, 15	100	26	63	80.4	1.00	28	96	16, 17	56	72.3	1.55
Houseville	13	95	25	60	76.1	4.35	2, 25, 26	82	16	47	67.1	4.88
Cazenovia	2	93	26	62	76.0	.....	26	84	17	47	67.4	.....
Oneida	14	97	26	60	77.3	5.97	2	87	16	51	69.0	6.60
Depauville	14	95	26	60	76.5	1.00	7	87	17	45	68.1	3.43
Oswego	4	90	26, 27	61	72.9	1.93	28, 29, 31	82	17	49	67.4	3.13
Palermo	14	99	5	57	79.1	0.70	25, 29	87	17	48	69.2	2.70
North Volney	4, 14	96	26	61	77.2	.....	.....	.....	.....	.....	.....	.....
Nichols	14	101	26, 27	59	77.5	.....	2, 26	92	17	52	70.2	.....
Newark Valley	14, 15	98	26	56	77.2	4.25	2, 22, 26	86	13	46	66.9	.....

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	JULY, 1868.						AUGUST, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
NEW YORK—Con'd.		°		°	°	*In.*		°		°	°	*In.*
Geneva	15	95	1	67	79.3	0.85	29	93	24	56	73.9	1.29
Rochester	13, 14	93	26	61	76.9	0.68	28, 29	86	17	56	69.8	3.22
Little Genesee	14	98	27	53	74.7	1.90	{7, 23,} {26, 31}	84	12, 13	50	67.8	1.65
Suspension Bridge	12, 13	102	17	62	77.3	0.50	26	92	13	53	69.3	2.50
Buffalo	17	98	26	63	78.5	3.11	29	92	13, 16	55	70.8	2.43
Averages					77.2	2.63					70.8	3.62
NEW JERSEY.												
Paterson	15	98	7, 29	65	77.8	7.30	3	93	13	56	73.3	4.15
Newark	13	92	1	61	75.7	8.54	30	87	13	56	72.2	4.99
New Brunswick	5, 15	96	27	66	77.4	5.04	19	89	17	59	73.0	3.15
Trenton	13	95	28	70	82.3	4.10	1, 3	88	13	60	74.8	3.91
Moorestown	14	98	27, 28	66	78.4	3.60	1, 30	88	17	61	73.2	3.67
Elwood	2	96	11, 29	62	80.2	.....	31	90	13	55	75.5	.....
Rio Grande	14	102	27, 28	62	79.4	9.88	30	95	13	59	73.8	.....
Dover	15	98	28	64	75.9	4.16	30	87	13	57	71.9	4.04
Haddonfield	.....	.....	.....	.....	.....	.....	3	89	14	60	72.4	3.32
Newfield	15	101	27, 28	65	79.1	.....	1	95	13	58	75.0	.....
Greenwich	14	95	27	65	78.7	2.68	1, 30	86	14	59	74.2	3.83
Vineland	14	106	27	64	82.6	3.00	31	95	12, 13	60	76.4	6.02
Averages					78.9	5.37					73.0	4.12
PENNSYLVANIA.												
Nyces	13, 14	95	26	58	75.2	3.75	30	85	13	48	69.5	5.60
Fallsington	13, 14	95	27	68	78.0	3.80	30	90	12, 13, 28	63	74.0	5.60
Philadelphia	14	97	27	68	81.6	2.63	30	88	17	65	77.5	2.55
Germantown	14, 15	98	27	64	81.5	.....	1, 3, 30	94	{5, 14,} {20, 21}	60	73.6	.....
Horsham	14, 15	92	27, 29	65	76.9	3,58	31	87	13, 17	59	72.4	4.82
Plymouth Meeting	14	95	27	67	78.4	.....	30	88	13, 17	60	73.7	.....
Dyberry	14	97	27	56	73.8	.....	19	84	17	46	66.0	.....
Whitehall	14, 15	96	28	64	77.7	.....	31	88	17	56	72.7	.....
Factoryville	14	98	26	58	76.9	1.05	19	87	17	49	69.3	5.30
Reading	15	98	28	67	79.9	.....	27, 30	87	13	59	74.4	.....
Parkesville	14	98	27	70	80.5	5.70	.....	.....	.....	.....	.....	.....
West Chester	14, 15	92	27, 28, 29	67	77.2	4.14	.....	.....	.....	.....	.....	.....
Ephrata	15	103	29	68	81.5	2.48	.....	.....	.....	.....	.....	.....
Mount Joy	19	103	29	65	80.8	.....	30	92	13	54	74.3	.....
Harrisburg	14, 15	96	29	70	82.6	2.36	27	87	13, 14	65	76.0	1.70
Fountain Dale	15	96	27	66	77.7	2.67	1	86	13	60	71.2	3.01
Tioga	14	106	26, 28	60	79.3	1.00	7	90	13	50	67.0	3.21
Ickesburg	15	100	29	64	77.8	4.08	26	89	15	55	71.9	1.79
Grampian Hills	14	102	29	58	75.8	3.36	31	85	13, 14	52	68.0	3.57
Johnstown	15	94	29	56	74.0	5.76	2	82	13	46	66.4	2.50
Franklin	4, 15	98	26	57	77.3	.....	27	88	13	49	69.1	.....
Connellsville	4, 19	98	27	59	79.6	.....	18	90	12	52	71.9	.....
New Castle	15	98	17, 26	61	80.3	.....	27	88	13	44	73.0	.....
Beaver	14	94	17, 26	68	82.4	0.25	18	89	13	53	75.6	0.50
Canonsburg	5	97	18, 29	64	78.3	4.08	27	90	13	50	69.0	3.33
Averages					78.6	3.17					71.7	3.34

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	July, 1868.						August, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MARYLAND.		°		°	°	*In.*		°		°	°	*In.*
Woodlawn	14, 15	100	27	65	79.7	4.78	30	90	13	63	74.6	3.00
Annapolis	15	98	27, 28	69	85.4	2.28	1, 19, 30, 31	88	14	62	77.3	7.39
Emmittsburg	15	104	27	65	80.4	.....	30	90	13, 14, 15	60	73.4	.....
Mt. St. Mary's Col.	15	95	27, 28, 29	65	76.5	3.05	31	86	14	58	71.5	3.67
Averages	.....	.....	.....	.....	80.5	3.37	.....	.....	.....	.....	74.2	4.69
VIRGINIA.												
Surry C. H	16	99	28	70	82.5	.....	31	94	13, 14	64	79.0	.....
Johnsontown	15	100	28	69	79.8	.....	30, 31	90	13	63	76.4	.....
Comorn	15	97	28	67	82.2	6.52	31	88	14	65	.....	.....
Mt. Solon	16	98	28	62	79.0	1.00	26, 31	88	15	57	75.5	3.24
Lynchburg	16	96	27	61	80.1	.....	1	84	13, 14	62	75.1	.....
Snowville	16, 19	92	2, 5, 8, 28	64	74.1	.....	1, 8, 31	83	13	48	69.3	.....
Wytheville	16, 17, 18	92	3	61	74.0	6.56	5,8,27,31	82	15	56	69.0	3.37
Averages	.....	.....	.....	.....	78.8	4.69	.....	.....	.....	.....	74.1	3.30
WEST VIRGINIA.												
Romney	14, 19	98	28	62	79.0	.....	18, 31	88	13, 14	56	72.9	.....
White Day	3, 4, 5, 6	98	7, 8, 9, 29	70	82.9	.....	26	95	13	53	78.4	.....
Averages	.....	.....	.....	.....	80.5	.....	.....	.....	.....	.....	75.7	.....
NORTH CAROLINA.												
Kenansville	16	105	27	72	82.4	9.53	11	95	4, 5, 6, 18, 20, 22, 24, 25, 27	76	82.2	2.72
Goldsboro'	16	101	2	72	83.3	9.30	11	96	13	64	79.0	3.25
Raleigh	16	108	28	70	84.5	5.95	.....	.....	.....	.....	.....	.....
Oxford	16	100	28	68	81.0	10.20	1, 2, 3	90	14, 15	62	76.3	2.65
Albemarle	16	99	6	64	79.1	9.70	10	94	14	57	75.6	6.44
Statesville	16	100	1	64	80.1	4.00	1, 2	88	13, 14	56	73.7	12.63
Asheville	4	86	9	66	74.1	.....	1, 6, 7, 10	83	13	58	71.3	.....
Averages	.....	.....	.....	.....	80.6	8.11	.....	.....	.....	.....	76.4	5.54
SOUTH CAROLINA.												
Aiken	17	99	3, 5, 31	71	79.4	.....	11	90	14	65	76.2	6.40
Gowdysville	16, 17	97	2, 5	72	82.1	.....	2, 11, 17, 31	90	14	65	77.6	.....
Averages	.....	.....	.....	.....	80.8	.....	.....	.....	.....	.....	76.9	6.40
GEORGIA.												
Atlanta	17	98	8, 13, 14	66	77.8	3.14	31	90	16	59	71.2	2.17
Summerville	17	99	30	74	82.7	3.93	.....	.....	.....	.....	.....	.....
Averages	.....	.....	.....	.....	80.3	3.54	.....	.....	.....	.....	71.2	2.17
ALABAMA.												
Opelika	18	103	29	70	81.6	6.28	12, 20	93	14, 16	71	79.2	3.28
Carlowville	18	100	29	70	81.2	5.70	10, 11	92	13, 23, 24, 28, 29	72	76.1	3.13
Moulton	18	92	2, 8, 30, 31	71	78.2	3.60	29	84	13, 22, 25	62	74.2	2.42
Greene Springs	18	97	9, 12, 25, 27, 28, 30	72	79.8	5.33	10, 28	89	23, 24	64	77.8	3.72
Havana	17, 18	96	9, 20, 30	71	80.0	4.72	11	89	23	66	74.0	.....

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	July, 1868.						August, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
ALABAMA—Cont'd.		°		°	°	*In.*		°		°	°	*In.*
Fish River	18	92	7, 16	72	76.4	8.00	.....	.....	.....	.....	.....	.....
Averages	.....	.....	.....	.....	79.5	5.61	.....	.....	.....	.....	76.1	3.14
FLORIDA.												
Jacksonville	17	101	31	74	82.8	7.70	11, 12	97	23	74	83.6	4.70
TEXAS.												
Gilmer	.....	.....	.....	.....	.....	.....	20, 21	100	7, 27	74	83.5	3.00
Houston	20, 21	84	3, 5, 14, 30, 31	73	76.2	8.35	16, 17	84	2	66	76.6	.....
Columbia	24, 25	95	3	73	82.5	3.29	16, 17	98	26	72	82.2	7.83
Waco	17	100	7	73	87.1	1.40	13	100	20	69	83.4	2.30
Austin	28, 29, 30	96	3, 4	72	82.2	2.55	2, 14, 15, 16, 17, 18	96	20	71	81.7	7.00
Averages	.....	.....	.....	.....	82.0	3.90	.....	.....	.....	.....	81.5	5.03
LOUISIANA.												
Benton	16, 17, 18, 19, 20, 21	92	7	74	83.8	.....	2	92	22, 23	72	82.1	.....
New Orleans	19	98	28	74	82.8	.....	12	93	24	78	.....	.....
Averages	.....	.....	.....	.....	83.3	.....	.....	.....	.....	.....	82.1	.....
MISSISSIPPI.												
Grenada	19	93	1, 2, 7, 10, 14, 15	70	79.9	.....	10	90	23	60	77.3	.....
Brookhaven	16	96	29	70	78.5	.....	8, 29	94	24	69	79.4	.....
Natchez	19	89	4	72	81.9	9.64	2, 11	88	24	67	81.7	3.62
Averages	.....	.....	.....	.....	80.1	9.64	.....	.....	.....	.....	79.5	3.62
TENNESSEE.												
Elizabethton	16, 17	96	6	64	77.3	.....	27	89	13	52	83.5	.....
Tusculum College	17, 18	98	27	67	80.1	2.95	17	90	13	61	74.9	.....
Lookout Mountain	17	96	30	70	80.1	.....	.....	.....	.....	.....	.....	.....
Austin	17	100	1, 2	72	86.0	1.82	19	92	13, 14	62	73.0	4.00
Clarksville	18	94	1	70	79.4	4.41	30	88	13	61	73.0	3.02
Memphis	13, 18, 19	101	8	74	84.6	2.74	30	97	22	66	79.1	6.35
Averages	.....	.....	.....	.....	81.3	2.98	.....	.....	.....	.....	76.7	4.46
KENTUCKY.												
Chilesburg	16	98	5, 28	66	79.6	1.78	6, 17	90	13	56	72.0	6.27
Lexington	14	94	6, 28	67	79.6	2.75	17, 29	86	13	53	72.6	5.75
Louisville	16	99	29	68	81.7	5.10	17	91	11	54	74.3	6.03
Clinton	18	93	1	73	82.2	3.05	7, 29	89	22	59	74.2	3.95
Averages	.....	.....	.....	.....	80.8	3.17	.....	.....	.....	.....	73.3	5.50
OHIO.												
New Lisbon	15	100	26	60	80.3	4.80	3, 17, 25, 27	88	13	52	73.9	2.77
Steubenville	.....	.....	.....	.....	.....	.....	18, 31	86	13	53	76.0	.....
Painesville	.....	.....	.....	.....	.....	.....	31	84	12	57	69.4	8

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	JULY, 1868.						AUGUST, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
OHIO—Cont'd.		°		°	°	*In.*		°		°	°	*In.*
Milnersville	4	99	17, 27	67	78.9	2.65	17	89	13	46	71.8	1.53
Cleveland	2, 4, 18	92	28	62	77.7	0.45	8, 31	86	13, 22	56	69.2	4.34
Wooster	14	100	28	68	83.2	.....	17, 26, 27	92	13	60	75.0	2.30
Gallipolis	15	98	29	64	79.2	3.65	.....	.....	.....	.....	.....	.....
Kelley's Island	3, 18	92	8, 9	72	81.7	0.53	15	84	12	64	73.0	3.78
Sandusky	18	92	28	68	82.9	0.48	8	83	13	56	70.3	5.23
Norwalk	18	94	26	64	78.1	.....	7, 26, 31	84	13	53	68.9	4.24
North Fairfield	15	98	28	66	79.9	1.33	17, 31	87	13	54	71.2	3.58
Westerville	15	98	25, 28, 29	68	.....	2.99	27, 31	88	12	53	69.8	4.06
Marion	15	94	26, 27, 28	66	78.5	2.32	17, 27, 31	85	13	54	69.9	2.86
Hillsboro'	16	94	25, 26	68	77.7	2.87	28	83	13, 14	56	68.1	7.34
Toledo	14, 18	100	27	62	79.7	2.50	.....	.....	.....	.....	.....	.....
Bowling Green	4, 13, 14, 15, 17, 18, 21	99	26	62	83.6	4.98	.....	.....	.....	.....	.....	.....
Kenton	18	101	27	71	87.3	4.25	6, 20	91	24	64	77.2	4.56
Urbana University	14, 15	96	28	67	80.5	1.88	16, 17	87	12	56	71.5	5.21
Bethel	17	96	5, 10, 26	68	80.7	4.38	17	90	13	55	72.6	6.13
Cincinnati	17	99	29	69	82.1	1.21	17, 28	90	13	58	73.0	4.64
Do	15	102	28	73	85.8	1.70	28	93	13	59	76.4	6.63
College Hill	14, 16	99	5, 6	70	82.0	2.50	1	89	15	60	73.1	5.38
Jacksonburg	19, 23	96	8	66	80.9	1.50	19	91	15	55	73.4	5.88
Averages	.....	.....	.....	.....	81.0	2.47	.....	.....	.....	.....	72.2	4.52
MICHIGAN.												
Monroe City	4, 5, 12, 14, 15, 18	96	26	63	80.9	2.39	15, 20	88	12	52	69.9	2.03
State Agric. College	.....	.....	.....	.....	.....	.....	25	88	10	52	70.1	2.42
Litchfield	13, 14, 17	98	27	61	79.2	2.80	1	85	10	55	65.2	1.38
Grand Rapids	1, 2, 4, 17, 18	98	25	64	81.5	.....	.....	.....	.....	.....	.....	.....
Northport	14, 17	94	7	58	75.3	0.42	6	86	21	46	66.0	2.25
Holland	18	96	25, 26	61	78.9	0.73	6, 17, 26, 27	86	10, 21	53	67.2	1.63
Otsego	18, 22	89	26	50	67.3	.....	23	89	11	46	63.0	.....
Copper Falls	11, 16	91	5	51	70.2	0.70	6	79	8	47	60.1	5.40
Ontonagon	16	98	4	56	73.5	.....	.....	.....	.....	.....	.....	.....
Coldwater	18	99	27	54	77.5	1.63	28	87	13	48	67.6	2.56
Averages	.....	.....	.....	.....	76.0	1.45	.....	.....	.....	.....	66.1	2.52
INDIANA.												
Richmond	15	95	5, 26, 27	68	79.3	4.19	.....	.....	.....	.....	.....	.....
Aurora	4, 14, 16	102	5, 6, 8, 9, 26, 28	72	83.8	3.17	16	94	13	55	74.5	6.53
Vevay	17	99	26, 27	73	84.8	1.17	28	90	13	58	76.3	4.29
Muncie	4, 14, 15, 16	98	26	66	81.5	2.40	17	92	14	55	72.1	4.15
Spiceland	4, 15	98	5, 25	69	81.7	4.00	.....	.....	.....	.....	.....	.....
Columbia City	12	100	30	66	82.9	3.44	6, 28	90	10	54	70.5	4.06
Jalapa	17	97	26	60	80.3	2.46	7, 17	89	13	47	69.7	3.06
Indianapolis	16, 17	95	26	66	80.8	4.49	28	90	13	55	70.9	2.35
State University	16	94	26	66	81.1	2.38	.....	.....	.....	.....	.....	.....
Rensselaer	18	100	25	64	82.0	2.55	17, 27	88	13	54	70.0	4.55
Merom	7	99	25	72	85.3	1.60	28	90	12	65	76.7	3.17

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	July, 1868.						August, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
INDIANA—Cont'd.												
		°		°	°	*In.*		°		°	°	*In.*
New Harmony	18	99	9, 25	70	84.1	2.42	1	91	12, 21	63	74.9	4.82
Averages					82.3	2.81					72.8	4.11
ILLINOIS.												
Chicago	4	100	8, 9	70	81.4	2.87						
Near Chicago	4	102	8	66	84.8		17	97	20	56	73.0	
Ridge Farm	7, 13	98	27	66	82.1	1.75	17	92	12	57	70.5	2.40
Marengo	17, 18	100	25	57	79.9		6	89	12	48	83.8	5.29
Golconda	19	107	29	68	83.0	2.10	1	99	14, 17	58	75.1	2.60
Aurora	17	95	25	62	77.5	2.28	27	85	22	53	66.1	4.60
Sandwich	1, 12, 14, 30	97	25	57	80.4	3.63						
Belvidere	18	96	26	54	78.6		27	90	30	51	67.6	
Ottawa	18	102	25	60	78.4	1.96	16, 27	94	11, 30	55	71.4	3.19
Winnebago	17, 18	97	26	60	79.1	2.93	27	90	30	46	68.0	1.68
Rochelle	28	100	25	58	81.1		27	91	12, 30	52	68.5	
Wyanet	14	101	26	52	79.1	2.03	27	92	21	49	70.1	2.08
Tiskilwa	14, 18	102	26	62	80.9		27	90	21	55	66.7	
Hennepin	18	98	28	54	79.0		27	92	4, 30	52	69.0	
Magnolia	18	105	25	58	84.8	2.40	26	94	21	47	67.6	2.70
Elmira	17, 28	97	26	65	81.9	1.25	27	90	30	54	68.9	3.38
Peoria	14	99	25, 26	66	83.1	1.47	26	90	21	56	71.5	2.74
Springfield	16, 18	103	2	68	81.7							
Dubois	18	98	9, 28	64	79.5	2.70	2, 6, 27	88	21	46	67.6	2.10
Waterloo	18	103	26	70	88.0		6, 7, 16	93	21	60	78.8	
South Pass							1, 29	93	21	58	76.0	
Galesburg	18	96	26	72	82.3	1.79	27	87	31	57	68.1	3.51
Manchester	18	100	25	68	84.0	1.70	6, 26, 27	92	12	56	71.9	3.03
Mount Sterling	17	103	25	70	88.0		26, 27	90	30, 31	58	73.8	
Andalusia	17	100	25	60	82.2		6	93	21	50	70.1	
Augusta	14, 15	94	25	67	84.5	5.24	27	86	29	58	73.2	4.37
Averages					81.8	2.41					71.2	3.13
WISCONSIN.												
Manitowoc	14	94	7	59	73.6	2.45	1	88	21	53	66.2	1.36
Plymouth	1, 13	97	25	59	78.0	3.00	6	91	11	51	67.0	3.00
Milwaukee	1	96	26	56	74.6	3.73	15	88	30	48	69.0	1.85
Geneva	13, 18	98	24	61	80.2	1.05	27	89	22, 30	55	67.8	0.35
Waupacca	12, 13, 14	97	25	65	79.7		26	87	11, 21, 30, 31	55	68.2	
Embarrass	10	96	26, 28	55	77.4	3.59	6	86	13	48	63.9	3.73
Rocky Run	17	98	26	61	80.4	5.19						
Edgerton	16	102	26, 27	60	80.6		5	96	19, 29, 30	50	68.8	
Baraboo	17	99	25	58	77.7	1.00	25, 26, 27	86	21	48	65.6	
New Lisbon	12	101	25	60	81.2		25	94	20	50	73.3	
Bayfield	11, 14	96	5	52	72.4		23	90	19, 31	52	65.6	
Averages					77.8	2.86					67.5	2.60
MINNESOTA.												
St. Paul	16	97	5, 25, 27	65	78.4	4.07	24	88	30	48	67.1	3.08
Minneapolis	16	101	4, 5, 24, 25, 27	63	78.5	3.09	5	87	31	48	66.1	2.81
Sibley	16	98	24	59	77.5	1.73	24	88	31	41	65.2	2.87

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and stations.	July, 1868.						August, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MINNESOTA—Con.		°		°	°	*In.*		°		°	°	*In.*
New Ulm	16, 29	96	25	65	80.8	3.62	23	90	29	53	70.5	0.90
Sauk Centre	10	97	27	58	75.5	5.72	15	85	30	48	66.5	5.44
Averages					78.1	3.65					67.1	3.02
IOWA.												
Clinton	13, 14	98	26	62	83.8	3.60	15, 24, 26, 27	90	12	56	71.7	1.50
Davenport	17, 18	95	26	59	81.1	5.43	26	86	12	55	68.8	3.68
Dubuque	17	97	26	59	81.3	3.67	27	90	30	50	68.9	2.35
Monticello	17	96	26	60	80.2	2.90	26	88	29	50	68.1	1.70
Bowen's Prairie	20	94	25, 26	66	79.1	2.45	26	80	30	50	67.6	2.65
Fort Madison	18	103	26	64	84.2	4.85	15, 17, 26, 27	88	30	53	70.3	3.34
Guttenberg	11, 17, 19, 20	96	26	56	77.1	.....	27	89	21, 30	44	64.2	.....
Mount Vernon	13, 14, 17	99	26	63	80.9	.....	26	91	21, 29	51	67.7	.....
State University	14, 28	96	26	53	80.8	6.15	24	92	12, 21	48	69.1	4.67
Independence	17, 20	101	24	66	82.3	3.10	26	97	30	48	68.9	1.90
Near Independence	17	105	25	60	83.5	4.80	25, 27	93	29	46	68.8	3.00
Waterloo	15	100	26	64	81.3	.....	15, 25	90	29, 30	48	70.0	.....
Marble Rock	.....	.....	.....	.....	.....	.....	1	86	30	48	67.8	.....
Algona	20	93	4	65	77.2	.....	15	89	30	50	66.2	.....
Near Algona	20	96	27	64	78.1	.....	.....	.....	.....	.....	.....	.....
Fort Dodge	20	99	28	64	80.7	5.34	15	88	20, 29, 30	54	68.4	3.83
Boonsboro'	3	101	24	56	79.0	4.60	15	92	8, 9, 31	50	67.2	3.00
Rolfe	20	99	31	64	80.2	1.26	15	92	8	52	68.0	3.55
Fontanelle	20	103	24	66	84.2	6.75	17	90	29	52	69.0	3.00
Logan	19	100	25, 26	61	79.9	2.25	16	86	11, 29, 30	50	66.5	2.80
Woodbine	20	104	24	63	81.8	.....	5	90	30	50	67.4	.....
Averages					80.8	4.08					68.2	2.93
MISSOURI.												
St. Louis University	18	98	25, 26	69	84.2	1.61	6	91	12, 21, 30	61	75.2	3.95
Allenton	18	109	28	64	81.6	2.30	7, 27	97	12, 21	54	72.2	5.54
Hematite	18	102	27	64	82.3	2.65	8	94	9	53	73.8	5.90
Canton	18	106	25	64	82.6	2.56	1	95	13	45	70.1	2.46
Rolla	17, 18	96	28	62	79.5	1.87	6, 7, 8	92	9	61	73.2	7.15
Jefferson City	19	101	1	73	83.0	.....	6	95	10, 22, 31	60	75.0	.....
Hermitage	22	108	26	68	83.8	4.09	6	100	21	54	73.2	5.54
Harrisonville	19	105	1, 11, 25	70	82.9	1.53	11	98	29, 30, 31	54	71.7	8.95
Oregon	21	105	25	68	84.5	4.22	5	95	29	54	72.1	3.02
Warrensburg	20, 22	104	26	67	84.5	1.75	6, 10	92	29	55	74.2	6.86
Averages					82.9	2.51					73.1	5.49
KANSAS.												
Leavenworth	21, 22	108	24	68	85.4	5.70	1	100	21, 22	48	69.3	7.15
Baxter Springs	22	106	24	70	86.3	3.40	.....	.....	.....	.....	.....	.....
Atchison	20	107	24, 25	70	86.0	3.45	5	94	12, 30, 31	54	72.1	6.40
Holton	20	111	24	69	89.1	.....	5	97	30, 31	54	74.2	.....
State Agric. College	20, 21	98	25	67	80.2	4.70	1	92	30	54	71.1	5.94
Council Grove	21	106	25	64	85.8	3.05	1	94	20, 22	55	75.6	15.50
Averages					85.5	4.06					72.5	8.75

Table showing the range of the thermometer, &c., for July and August—Cont'd.

States and places.	JULY, 1868.						AUGUST, 1868.					
	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
NEBRASKA.		°		°	°	*In.*		°		°	°	*In.*
Elkhorn	20	102	24	65	81.4	.....	23	89	22	53	69.5	.....
De Soto	20	104	24	67	82.0	3.39	5, 23	88	29, 30	53	68.8	2.45
Fontanelle	.....	.....	.....	.....	.....	.....	16	89	29	52	71.8	.....
Bellevue	20	99	24	68	85.2	1.40	24	89	29, 30	55	70.0	1.90
Glendale	20	106	24, 25	66	83.7	3.00	1, 5	90	29	50	69.6	6.36
Omaha Agency	20	105	4, 24, 31	70	83.5	2.00	.....	.....	.....	.....	.....	.....
Nebraska City	20	99	25	68	83.2	2.82	2, 23, 24	84	31	55	73.0	5.40
Averages	.....	.....	.....	.....	83.2	2.52	.....	.....	.....	.....	70.5	4.01
UTAH TERRITORY.												
Gt. Salt Lake City	.....	.....	.....	.....	.....	.....	3	91	31	50	73.3	3.69
Wanship	24	95	9	60	73.8	.....	3	95	30	56	72.2	.....
Averages	.....	.....	.....	.....	73.8	.....	.....	.....	.....	.....	72.8	3.69
CALIFORNIA.												
San Francisco	2	70	11	52	57.1	.....	.....	.....	.....	.....	.....	.....
Murphy's	24	104	2, 3	52	76.0	.....	.....	.....	.....	.....	.....	.....
Averages	.....	.....	.....	.....	66.6	.....	.....	.....	.....	.....	.....	.....

NOTES ON THE WEATHER, CROPS, ETC., FOR JULY, 1868.

[To save room we omit many notices of the "heated term," so severe, long, and general as the tables show. The fires in the Canadian woods, destroying several million dollars worth of timber, during the latter part of July, filled the air with smoke all over the northern and middle States, from Minnesota and Iowa to the Atlantic—notices of which we also omit, except in a few southern States.]

Steuben, Maine.—On the 15th, heaviest thunder-storm ever known here, with a deluge of rain; barns and houses struck, and bridges and crops swept away.

West Waterville, Maine.—Much thunder in July; temperature 2.20° above the average of the month for four years.

Gardiner, Maine.—This July is 0.6° above the July average of 32 years; the rain-fall is 1.5 inch less than the average of same period.

Standish, Maine.—Haying began on the 6th. On 15th thermometer 101° at noon; farmers had to seek shelter from the sun; very little wind in July.

Lisbon, Maine.—But two clear days after the 18th.

Norway, Maine.—The hottest July remembered here, and more damage from lightning than for ten years previous.

Cornishville, Maine.—Average July temperature for 35 years, 67°; in 1844, 72°; in 1854 and 1855, 70°; this year, 74°.

Stratford, New Hampshire.—The warmest July on my record by some 5°.

Goffstown Centre, New Hampshire.—Unexampled heat; thermometer above 100° on three days, and above 90° on ten; but little thunder in July.

Lunenburg, Vermont.—A hot month; but little wind; partial showers, so that some sections are very dry; much thunder and lightning, but little damage.

Randolph, Vermont.—Up to the 15th hotter than ever known; people suffered severely.

West Charlotte, Vermont.—Early Harvest apple ripe, 28th.

Middlebury, Vermont.—Very hot and dry; many crops suffering; streams low and mills stopped.

Kingston, Massachusetts.—July 4th, thermometer 104° from 2.30 till 4 p. m.; the hottest day on record; average temperature of the month 5° above that of July, 1867.

Topsfield, Massachusetts.—July closes warm and dry, with suffering crops, though rivers and springs are full as usual.

Georgetown, Massachusetts.—Rains few and light; no heavy winds.

Newbury, Massachusetts.—Very dry; showers pass around, but so much cloudy weather protects vegetation from drought.

Billerica, Massachusetts.—Very dry month; dry, dry, dry.

West Newton, Massachusetts—Thermometer 100° and upward on six days in July.

New Bedford, Massachusetts.—Locust trees blossomed on 14th; catalpa, on 23d.

Lunenburg, Massachusetts.—Warmest July since 1847, when average was 75.63°; average for 30 years, 70.86°; for 1867, 69.24°; this July, 73.10°.

Richmond, Massachusetts.—July 2d to 19th, the earliest and longest heated term ever known here.

Newport, Rhode Island.—Thunder on 5th, 7th, 13th; rain on 7th and 20th.

Pomfret, Connecticut.—A few days of extreme heat, but the July average is below that of several years.

Columbia, Connecticut.—A month of unusually severe and steady heat.

Waterbury, Connecticut.—Thunder, 3d and 19th; rain, 3d, 19th, 20th, 24th, 25th; after 25th sun seldom seen; sky, very seldom, so smoky.

Moriches, New York.—Tremendous rain on 24th and 25th, from 12.30 a. m. till sunrise; 5 inches fell.

South Hartford, New York.—Month of excessive heat and drought; on 14th the farmers had to suspend work till evening; many cases of sun-stroke during this heated term.

Troy, New York.—Hottest July since 1830; probably hottest ever known here; mean, 5.92° above any July in 12 years.

Garrison's, New York.—Month warm and dry.

Mohawk, New York.—Month dry; a few partial showers.

North Hammond, New York.—Earthquake distinctly felt between 8 and 9 a. m. on 30th. Warmest July on record here; great drought, ground baked three feet deep.

Depauville, New York.—Remarkably hot and dry July.

Palermo, New York.—Hottest July on record here in 15 years.

Nichols, New York.—Hottest and dryest July ever known here, with much thunder and lightning.

Buffalo, New York.—Gardens and pastures suffered severely until rains of 22d and 24th.

Newark, New Jersey.—Heavy thunder with lightning on seven days, with much rain 19th, 24th, and 25th. Hail on the 15th. Mean of July for 25 years, 73.18°—this July 2½° hotter; but in 12 of the 25 the mercury rose higher, and 1856 and 1866 had higher means, but in every one the mercury sunk lower than in this July.

Trenton, New Jersey.—On 19th heaviest thunder-storm ever known here, from 7 to 9 p. m.; high wind from north, tearing down roofs, trees, &c.; lightning terrific and incessant, (some 20 places struck in this city;) rain-fall, 2.4 inches.

Elwood, New Jersey.—Just enough rain to keep the crops growing finely.

Newfield, New Jersey.—Hot month; first half wet—numerous thunder-showers. Wheat harvest commenced 6th; katydid heard 29th.

Nyces, Pennsylvania.—Thunder-showers on seven days.

Fallsington, Pennsylvania.—Warmest July on my record since 1849.

Dyberry, Pennsylvania.—Month clear, hot, dry. Frequent thunder and some hail.

Factoryville, Pennsylvania.—Since May 12th only 1.8 inch rain.

Reading, Pennsylvania.—Last 17-year locust seen on the 4th. Mouth remarkably dry; cases of sun-stroke (men and beasts) numerous.

Parkesville, Pennsylvania.—Last half of July wind mainly southeast; air hazy, obscuring the sun, and dimming it at noon.

West Chester, Pennsylvania.—Thunder-showers on seven days. From 27th smoky, without odor.

Fountain Dale, Pennsylvania.—Rain in season to save corn, but gardens suffered from drought.

Tioga, Pennsylvania.—Warmest weather ever known in this county, averaging 10° above twelve Julys previous. Only once in 12 years has the mercury been above 100° in shade; this year, once in June, five times in July, and on 14th 106°. The winds were mostly from the north in the heated term.

Indiana, Pennsylvania.—On the 5th two clouds met five miles west, (one from east, the other from northwest,) and passing west, with incessant lightning, swelled the streams, with 20 minutes' raining, more than ever known before.

Franklin, Pennsylvania.—Thunder-showers nine days. Smoky from 16th to 20th.

New Castle, Pennsylvania.—From 1st to 5th and 11th to 21st mercury rose to 90° and 98° on north side of house, shaded with trees; in the village 5° higher. A few 17-year locusts appeared June 16th; potato bugs on July 15th.

Grampian Hills, Pennsylvania.—Mean temperature 5.75° above the average of July for 5 years, and 3° warmer than either of them.

Beaver, Pennsylvania.—Month almost one continued heated term, with very little rain, and that in veins, leaving some places very dry.

Surry Court House, Virginia.—All but last six days warm and dry. First dry month since 1866. Last days smoky.

Johnsontown, Virginia.—Lightning or thunder, or both, on 14 days; rain on eight days; smoky on 26th, 27th, and 28th.

Comorn, Virginia.—July rain-fall 6.52 inches, nearly all in last 10 days; almost double the July average of 10 years past.

Mount Solon, Virginia.—July 26th dense smoke came through the gorges of the North mountain, filling the air the rest of the month.

Snowville, Virginia.—Thunder on 10 days; rain on 12 days.

Wytheville, Virginia.—July 16th, 17th, and 18th, mercury higher than in the 12 years I have kept record, except July 14th and 17th, 1866.

Kenansville, North Carolina.—From 21st to 27th numerous heavy thunder-showers caused extensive freshets on low lands.

Raleigh, North Carolina.—Thermometer ranged from 100° to 109° on 4th, 8th, 14th, 15th, 18th, and 19th.

Oxford, North Carolina.—July 16th, thermometer 100° to 101° from 2 p. m. till sunset.

Albemarle, North Carolina.—Since the 20th general rains have revived the crops. Smoke from the north filled the air during the close of July.

Gowdeysville, South Carolina.—Hottest July for years, with frequent showers.

Atlanta, Georgia.—July 17th, the hottest day in three years. Lightning and thunder nearly every day in July.

Summerville, Georgia.—Temperature of springs and wells much changed during the heated term.

Moulton, Alabama.—Month unusually showery—showers local; no storms; heat oppressive.

Fish River, Alabama.—From 21st to 25th, inclusive, squalls of wind and rain; the dampest time ever remembered.

Houston, Texas.—Much thunder and lightning; 8.35 inches rain-fall.

Austin, Texas.—July unusually oppressive, owing to the absence of the southerly breeze and the great humidity.

New Orleans, Louisiana.—Frequent, but brief, showers of great violence; occasionally very sultry.

Grenada, Mississippi.—Rain on 18 days, and in sight nearly every day. Mostly brief and limited in extent.

Brookhaven, Mississippi.—Peaches ripened June 20th. On 4th instant, ripe apples. Rain on 20 days in July.

Elizabethton, Tennessee.—From 1st to 12th a thunder-storm in sight or hearing daily. From 12th to 19th hot weather, drying earth and crops. On 19th, the severest storm of wind, rain, hail, &c., ever known here—to 27th almost one continuous rain-storm.

Tusculum College, Tennessee.—Thunder-showers here or in sight on 13 days; rain on two days, and on four days lightning only.

Clarksville, Tennessee.—Frequent showers, mostly with lightning and thunder; and from 25th to 31st very smoky, seeming to come from the west.

Lexington, Kentucky.—Month intensely warm; frequent brilliant electric phenomena, and numerous light rains; no violent storm.

Clinton, Kentucky.—First summer locust, (*cicada pruinosa,*) 2d; katydid 8th; ripe peaches 23d.

New Lisbon, Ohio.—Cutting clover 1st; wheat 9th. From June 29th to 24th instant, inclusive, (except 9th,) mercury ranged 90° and upward; the longest and hottest term ever known here.

Cleveland, Ohio.—Average temperature 2.73° higher than in any July in 13 years past.

Norwalk, Ohio.—Hottest month ever observed here; average temperature 8° higher than average of six Julys past.

Kelley's Island, Ohio.—Compared with 10 years past, the mean temperature has been 7.71° higher this July; yet the maximum no higher than in 1866; the uniformly high temperature makes the difference.

North Fairfield, Ohio.—The hottest summer in 10 years, except 1862, which it equals.

Toledo, Ohio.—This heated term extended from June 27th to July 25th—29 tropical days—and for 17 of these the mean temperature was above 80°, and rose to 87°; and in none of the 29 days was the mean of the 24 hours below 74°.

Urbana, Ohio.—The mean of the observations at 2 p. m., for 36 Julys is 80°: this year 87.60°. The nearest to this is July, 1854, when it was 84.5°.

Litchfield, Michigan.—The warmest July (days and nights) in 30 years; up to 30th, rain-fall only 0.8 inch.

Northport, Michigan.—Scarcely any rain since early in June.

Copper Falls, Michigan.—An extremely dry and warm month.

Aurora, Indiana.—The 17-year locusts last seen on 13th. From 25th to 29th, smoky; wind from northeast.

Muncie, Indiana.—Red-eyed locusts did very slight damage. All gone. First green-eyed locusts appeared on the 11th; katydids 28th. Mean average temperature 5.5° higher than 1867.

Rensselaer, Indiana.—Month very hot and dry.

Chicago, Illinois.—July 20th, temperature of lake at 30 feet depth, 72°; warmest in many years.

Near Chicago, Illinois.—Thunder, lightning, and rain on six days.

Marengo, Illinois.—Temperature of well, 49°, on the 12th. Heard katydid on the 15th.

Golconda, Illinois.—Thermometer 100°, and above, on 15 days.

Aurora, Illinois.—Month unusally warm.

Belvidere, Illinois.—Hot from 3d to 18th; supposed hottest July since 1855.

Rochelle, Illinois.—A few persons died of sun-stroke, others sickened, and some horses died at work.

Wyanet, Illinois.—On the 14th, from 10 a. m. till 4.45 p. m., the thermometer ranged 100° to 101°; no day equals this in my observations of over 25 years.

Tiskilwa, Illinois.—July 19th; the past fortnight the hottest known in my residence here of 25 years. Dead calm nearly all that time.

Hennepin, Illinois.—Heat extreme, but equable; thermometer 90° and upward on 21 days; and below 70 on only eight mornings.

Magnolia, Illinois.—July 20th; an unprecedented hot spell; for 20 days the thermometer ranged from 95° to 105° in the shade, and on sandy soils to 106° and 108°. On the 24th everything appeared autumnal; fall crickets singing, and blackbirds forming into flocks.

Dubois, Illinois.—The locust years here were 1842, 1855, and 1868, 13-year periods.

Mount Sterling, Illinois.—Averages: 9 a. m., 1867, 75.5°; in 1868, 88.3°; at 2 p. m., 1867, 85.5°; in 1868, 94.7°; at 9 p. m., 1867, 76.8°; in 1868, 84.2°; of all the observations in 1867, 78.8°; in 1868, 88°; nearly 10° higher this July than in July, 1867. With few exceptions, it was higher this year at 3 p. m. than at 2 p. m.

Augusta, Illinois.—Potato flies the 13th; katydid heard the 14th; early harvest apples ripe 16th.

Plymouth, Wisconsin.—July unusually hot and dry; mean temperature 6° above July average for 4 years past.

Geneva, Wisconsin.—Katydids the 24th; wheat harvest began the 25th.

Rocky Run, Wisconsin.—July 9th to 20th, mercury above 90° every day at 2 p. m.; longest excessive heat in nine years; people prostrated by it all through this section.

St. Paul, Minnesota—July 29th; violent thunder storm, with high wind; lightning struck eight or ten times in the city, but did little damage.

Minneapolis, Minnesota.—Hottest month recorded here. Thunder-storm the 29th, lightning doing some damage here.

New Ulm, Minnesota.—Aurora borealis on the 8th, 10th, 14th, 15th, 19th and 25th; most splendid on the 10th. The latter noticed specially in reports from St. Paul, Clearwater Lake, Minneapolis, Dubuque, Iowa, and generally in northwestern States.

Clinton, Iowa.—Hottest month recorded here.

Dubuque, Iowa.—Month marked by uniform high temperature, steady barometer, and absence of winds. Records for 16 years show no July with so high a mean temperature.

Fort Madison, Iowa.—Rye harvest began the 2d; wheat the 16th; potato bugs cleaned out our potato patch the 18th; oat harvest the 19th.

Guttenberg, Iowa.—Great and long continued heat delayed harvesting. Winds few and light; several horses killed, and some men sickened by heat.

Iowa City, Iowa.—The hottest month in 30 years, in all of which the average temperature was, at 7 a. m., 64.9°; at 2 p. m., 82.6°; at 9 p. m., 70.2°; and of all the observations, 72.3°. This July the means were 75.6°, 89.1°, 79.5°, and 80.8° for similar observations, respectively.

Waterloo, Iowa.—Longest, greatest, and hottest drought known in 11 years. No copious rain before 31st.

Rolfe, Iowa.—Blossoming of wild flowers about a week earlier than last year.

Fontenelle, Iowa.—Flight of grasshoppers, 3d to 20th, when all were gone. Katydids heard on 9th. Wheat harvested 26th. The warmest July on record.

Logan, Iowa.—Grasshoppers left early in July.

Allenton, Missouri.—Thunder storms on 11 days; thermometer in shade 100° and upward on 13 days.

Rolla, Missouri.—High, even temperature; no cool nights; heavy dews; thunder and lightning for 18 days, almost in succession, without cooling the air.

Jefferson City, Missouri.—No beneficial rain since June 9th, and distressingly hot; grapes wilting on the vines.

Hermitage, Missouri.—Twenty days at and above 98°, and 11 days 100° to 110°. Thunder showers daily from 3d to 24th.

Leavenworth, Kansas.—Like Indian summer 24th to 29th, both inclusive; thermometer 100° degrees and upwards on 16 days.

Holton, Kansas.—Heard katydid on 12th. Much suffering from heat; on 20th thermometer stood at 113° in shade for one hour—on 20 days it was 100° and above.

Elkhorn, Nebraska.—The hottest month in 11 years; breezes soft and enervating, and nights still, sultry, and often without dew.

Omaha Agency, Nebraska.—Fine growing season.

Harrisburg, Utah.—The latter part of July was the hottest season ever known here.

Wanship, Utah.—Clouds of locusts daily, sometimes obscuring the sun, until the 25th, when host after host successively rose, organized and passed away. In rising their wings rattled like a hail-storm. In about two hours thirty such swarms rose and flew away. For two days afterwards swarms were seen overhead, flying from other quarters.

Port Townsend, Washington Territory.—Fine season for gathering crops.

NOTES ON THE WEATHER, CROPS, &c., FOR AUGUST, 1868.

Steuben, Maine.—August 15th.—In three weeks had only six hay days, and two of these were Sundays—and yet it is dry weather; 28th, light frost.

West Waterville, Maine.—Swallows left on 29th; springs and wells getting low.

Gardiner, Maine.—The dryest August on record; the nearest to it (1841) had 1.08 inch rain.

Norway, Maine.—Slight frost on 13th.

Cornish, Maine.—Temperature 4.95° higher than the average of August in 13 years.

Stratford, New Hampshire.—August warm and dry.

Goffstown Centre, New Hampshire.—Little lightning and thunder; drought; pastures suffering.

Shelburne, New Hampshire.—Haying commenced July 6th, and ended August 29th.

Lunenburg, Vermont.—Pleasant month; latter part dry; much of it smoky; sometimes almost dark with smoke.

Craftsbury, Vermont.—A cool, dry month; severe drought; many wells and springs have failed.

Woodstock, Vermont.—A slight frost on 17th.

Topsfield, Massachusetts.—Earth very dry; wells failing; slight frost on 28th.

Georgetown, Massachusetts.—Ponds, &c., almost as low as in 1864-'65; in many cases trees set out last spring killed by drought. Many sultry days, much damp weather, heavy dews and low-lying fogs, but little rain.

Billerica, Massachusetts.—Rains early in the month saved the crops, but now dry again; two thunder-showers this season.

Lunenburg, Massachusetts.—Thunder-showers on six days. Average mean temperature of August for 30 years, 68.6°—of 1867, 69.23°—this year, 69.6°.

Newport, Rhode Island.—Frequent showers on 1st, 4th, 5th, 8th, 9th, 16th, 20th, and 30th.

Troy, New York.—Not a day in August free from clouds, and five fully clouded.

Garrisons, New York.—A warm, wet month.

North Hammond, New York.—Great drought.

Nichols, New York.—Last of month very dry.

Rochester, New York.—The average temperature a little higher than the August average for 30 years.

Little Genessee, New York.—Month unusually warm and dry.

Buffalo, New York.—Month 1.5° warmer than the August mean for 10 years; pastures and gardens suffered for want of rain.

Newark, New Jersey.—The maximum temperature of this August was exceeded in 18 of the 25 preceding Augusts, but all save three had lower minimums, so that the mean temperature was $1\frac{1}{3}$° above their average. The summer mean temperature was nearly half a degree above the 25 summers preceding, and the rain-fall nearly 6.75 inches more than those 25 summers. Katydids about the 7th.

Newfield, New Jersey.—A flock of Yankee mocking birds (bob-'o-links) in their autumn dress (as reed birds) passed south on the 28th. August has been very changeable; numerous showers but not much rain.

Nyces, Pennsylvania.—Thunder storms on 3d, 5th, 6th, 7th, 9th, 16th, 19th, 30th, and 31st.

Fallsington, Pennsylvania.—Rain on 11 days, but a month of very fine weather.

Dyberry, Pennsylvania.—On 7th, p. m., coarse hail and rain in torrents, with crashes of thunder, came from the north; then moved slowly four or five miles

north again, roaring like a great water-fall; was heard several miles; then moved slowly two or three miles east, and after returning again partly, moved off east, going over some of the ground three times, leaving the ground covered with hail, (some over an inch through,) and destroying gardens, oats, buckwheat, &c.

Harrisburg, Pennsylvania.—Rain on 14 days.

Fountain Dale, Pennsylvania.—Until 27th very dry.

Johnstown, Pennsylvania.—Month unusually dry and streams low.

Beaver, Pennsylvania.—Less rain than in any month on record; dust not laid until 31st.

Surry Court House, Virginia.—August was warm, fair, calm; favorable for farmers; rain enough for corn and warmth enough for cotton.

Comorn, Virginia.—Temperature equable and pleasant; rains seasonable and plentiful; no severe storms.

Snowville, Virginia.—August 14th, frost in a neighboring county; only a few light showers this month.

Kenansville, North Carolina.—Lightning and thunder on 3d, 4th, 5th, 7th, 10th, 12th, 25th and 29th.

Atlanta, Georgia.—Lightning and thunder on seven days.

Moulton, Alabama.—Month cloudy, and more or less damp, with foggy mornings and rank vegetation, denoting a sickly season.

Carlowville, Alabama.—Corn seriously injured by drought, and cotton by boll worm and army worm.

Jacksonville, Florida.—Mean temperature of August averages 82.55°, one degree below this month. Rain-fall of August for 16 years averages 7.055 inches, or three inches above present month. Average summer temperature is 81.82°; the summer just past was 82.09°.

New Orleans, Louisiana.—Cutting second crop of hay, 13th; elderberries ripe, 15th; oranges (not quite ripe) in market, 26th.

Grenada, Mississippi.—Much fodder lost by wet weather; cotton suffering by wet, boll worm, and caterpillar.

Brookhaven, Mississippi.—Cotton-picking commenced, 20th. This is said to be the sickliest season since 1833; not enough well to care for the sick; disease, bilious fever, tending to congestion and sometimes to typhoid type.

Elizabethton, Tennessee.—Nearly every rain this month commenced with lightning and thunder; a very copious rain on 22d and 23d.

Chilesburg, Kentucky.—Grasshoppers abundant, 8th; Concord grapes ripe, 20th; Dianas and Clintons, 28th; grasshoppers in swarms, 30th.

New Lisbon, Ohio.—Martins left here 1st; month dry; pastures dried up.

Kelley's Island, Ohio.—On the 18th, during a thunder-shower, a singular tornado arose suddenly, breaking off trees, &c. It occupied a space of only 30 rods, east and west, making perfect wreck; on either side no damage. At the same time another devastated a similar path of 30 rods on the northern side of the island.

Otsego, Michigan.—Late potatoes much injured by drought.

Ridge Farm, Illinois.—Potatoes suffering from fly, 10th; early peaches ripening, 16th.

Aurora, Illinois.—August, less wind than usual—favorable for harvesting.

Hennepin, Illinois.—August of equable temperature, with little wind and much hazy weather.

Dubois, Illinois.—Corn badly injured by drought.

Belvidere, Illinois.—Month quite cool and dry.

Bloomfield, Wisconsin.—A dry and excessively hot season.

St. Paul, Minnesota.—Harvest earlier than last year.

Clinton, Iowa.—Month pleasant, but dry—gardens suffering.

Dubuque, Iowa.—Slight frost on low lands on 5th and 26th.

Monticello, Iowa.—Hop picking commenced on 31st—a week earlier than last year.

Independence, Iowa.—August very dry; even sloughs dried up—maples shedding leaves, and other signs of an early fall.

Boonsboro', Iowa.—Mean temperature same as average of 12 years past.

Logan, Iowa.—Myriads of grasshoppers came again on 2d, and after eating corn, &c., departed from 10th to 15th, leaving vast numbers of eggs, which are now hatching out.

Woodbine, Iowa.—Weather favorable, but grasshoppers returned from NW. on 3d to 8th, remained some ten days, doing considerable damage and leaving numerous eggs, now hatching.

Rolla, Missouri.—Drought continued till middle of the month, when rains revived the crops.

Warrensburg, Missouri.—August 29th to 31st, first general rain since April—crops have suffered in many places from drought.

Leavenworth, Kansas.—Hartford prolific ripe, 1st; Concord, 8th; Delaware, 15th; Catawba, 29th—all earlier than last year. Grasshoppers came 31st.

Atchison, Kansas.—Grasshoppers came 13th, and have been numerous and destructive ever since.

Holton, Kansas.—July heat damaged corn and late potatoes to a half crop—grasshoppers have eaten the turnips.

Elkhorn, Nebraska.—Coldest August in 11 years.

Glendale, Nebraska.—A wet month and cold as July was unusually hot. Grasshoppers coming and going in great numbers all the month. In the spring their course was northerly and easterly, now southerly.

Nebraska City, Nebraska.—Grasshoppers reappeared 11th; have stripped husks and blades of late corn; destroyed buckwheat, potato vines, &c., 16th; leaving for the south 22d.